

## Research Note & Precis # 4

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Jennifer S. Light's "When Computers Were Women" (1999) examines the early history of American computing and argues that women's central contributions to wartime computation and early digital computing were systematically removed from historical narratives as the field became masculinized & professionalized. She develops this claim through archival research on job titles, workplace hierarchies, personnel records, and media portrayals that reclassified women's technical labour as clerical once men entered the field.

Light's purpose is to show how gendered assumptions shaped the historical record of computing in order to reveal that technological history is also a history of power & exclusion.

Emerging Themes: Expertise is a social construct. Erasure happens at the origin point. Historical narratives distort reality.

Key idea: Light shows that the definition of "technical work" is not fixed or natural. It is constructed by institutions that decided who counted as a professional & who did not ~~is~~ important.

Why it matters: Light makes it impossible to treat computing as a neutral unbiased technical progression. She shows that the

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formation of the field is entangled with decisions about whose labour counted & whose did not. This reveals that expertise depends on power structures, not knowledge.

↳ Hicks showed what happens when a field devalues labor

↳ Frana showed how technological pathways disappear from history.

↳ Light shows how feminized labor was made invisible in the first place and how

this connection is preserved in society today. I myself still cringe

when people as what I do.

people can disappear from history. When Light describes how women performed highly technical labor were classified as "clerical", I suddenly saw how this sets up

the same problem Hicks analyzes decades later. Marginalization of women <sup>in computing</sup> did not begin when the field expanded; it began at its onset.

By reclassifying women's technical labor as "clerical" institutions made it easier to sustain a gendered hierarchy in which men appear as the rightful creators. Light documents how early histories simplified a messy, collective, feminized system into a "clean" story of male innovation.

\* Aesthetics > Knowledge/equity/understanding

Once again society seems to prefer an engaging story over an accurate one. maybe the historical record is its own kind of lossy compression. Light helps me see that full resolution of history is often lost

Take Away Thoughts

- (1) Gender is not a 2° issue
- (2) To study innovation is to study exclusion.
- (3) To study technology is to study power
- (4) Approach ANY origin story w/ caution...



## Research Note + Precise # 5

In "As we may think" (1945), Vannevar Bush envisions a future in which scientific knowledge expands beyond human capacity to manage it and argues that new information tools are needed to augment human thought rather than simply store data. He develops this claim by describing the limitations of existing indexing systems and proposing the memex. Bush's purpose is to imagine how future technologies may support scientific discovery in order to guide postwar research towards systems that enhance human understanding.

### Core Themes:

#### (1) Human cognition as the bottleneck.

Bush begins by suggesting that the problem w/ knowledge is  $\phi$  volume but human capacity.

He argues we need a system that preserves

richness but extends human thought, like how Chiang describes digital systems as imperfect compressions 80 years later... and showed how any digital structure inevitably loses something.

AND the institutions behind the system!

#### (2) The power of linking & indexing.

He argues how a system is indexed shape the way knowledge is produced & remembered.

hyperlinks' annotations!

#### (3) Technological futures as imaginative projects rather than a historical narrative.

#### (4) The aesthetics of order & simplicity

Bush wants a system that makes the world of knowledge navigable.

↳ his vision doesn't seem to contain a trace of social or gendered labour... BUT remember eloquence conceals ignorance!

\* KEY IDEA: The central problem of modern science is not  $\phi$  producing information, but making it intelligible to the human mind.

Why it matters: Bush gives me a picture of how mid-century thinkers imagined the relationship between humans & machines. It's striking how he predicts a world where information flows seamlessly through human-shaped tools.

Even if the memex was never built, it was more than a technical layout. Its design philosophy helped shape the conceptual DNA of later technologies. Ultimately, Bush helps me see why the internet (Franz) & AI/LLMs (Chiang) emerged the way they did.

Bush imagines an idealized future for knowledge, but he does not or suggest who will build, maintain, or operate these systems. Was this intentional? or was it not relevant? The memex is driven by an aesthetic of associative eloquence that bypasses social complexity.

### Takeaway Thoughts.

DID he value the people who understood it??

Bush imagined the future of thought, but not the future of the people who support this. It represents an optimistic (Hicks) moment when people believed technology could amplify human reasoning w/o altering or distorting it. Was Bush's idea really technologically impossible? or is it a result of decline??