



Writing Women into the History of Technology

HS2020: Gender, Race and Tech

Prof Monamie

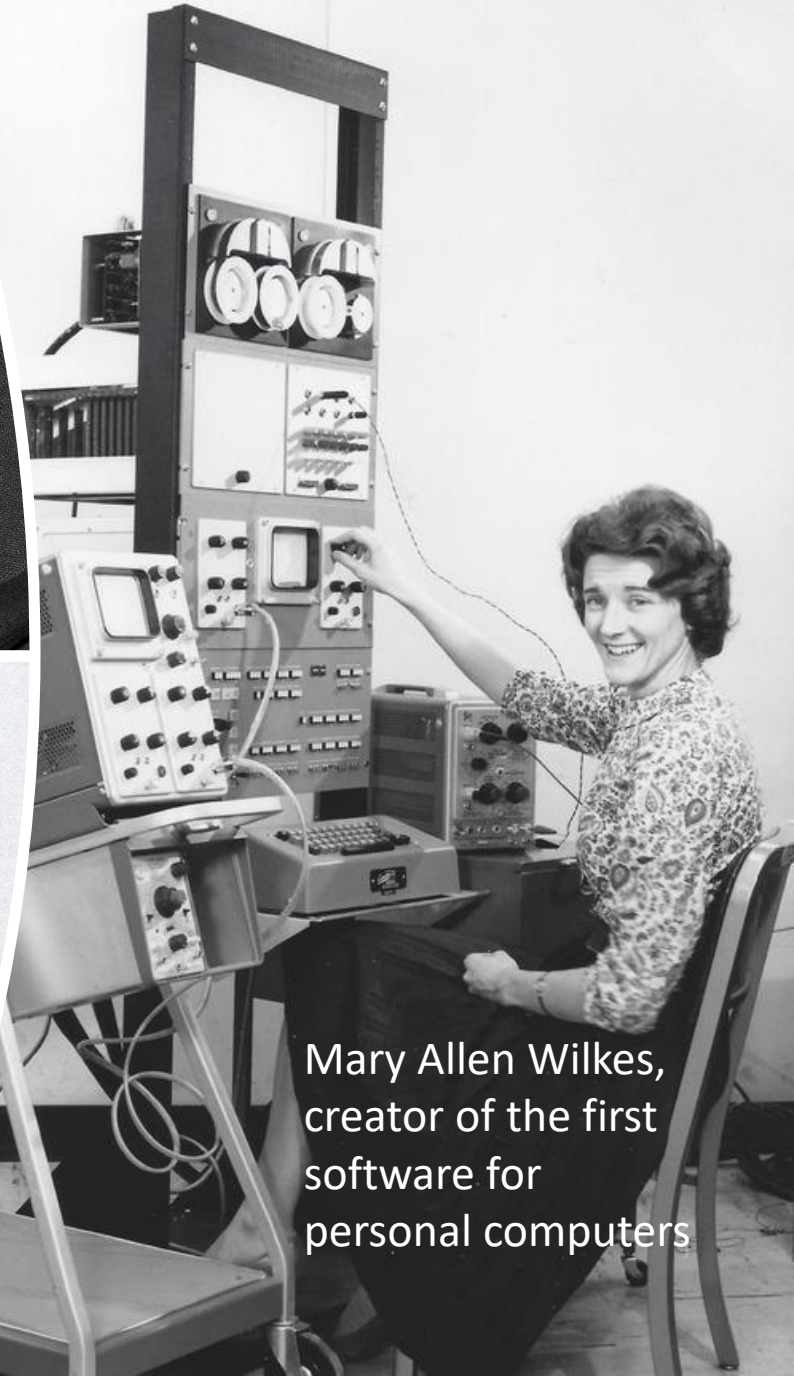
February 1, 2021



Mary Jackson,
engineer for NASA
for the Apollo
mission



Ada Lovelace, first
computer
programmer



Mary Allen Wilkes,
creator of the first
software for
personal computers

Recap

- Crash course in understanding gender (*as nonessentialist*), and technology (*as not neutral or even necessarily masculine*)
- Technology is both a *source* and *consequence* of gender relations. In other words, *technology shapes gender relations*, and *technology is a product of gender relations*.
- Understand the concept of *technological determinism*, and how it has been treated in various feminist conceptualizations of technology.



Image by Jamy van Zyl

Questions from Week 2

Lecture Objectives & Outline

- **Part 1: Industrial Revolution** was also a **domestic revolution** that included women
 - Cowan's article
 - Case study: migrant workers and technological innovation
 - In class analysis: gender analysis of the complexities of tech-mediated care
- **Part 2: Women** have been **integral** parts of **technological development**
 - *Hidden Figures*
 - Case study: rape kit
 - Case study: challenges of women leaders in STEM
- **Part 3: Designing feminist technology** (Churchill's piece in tutorial)



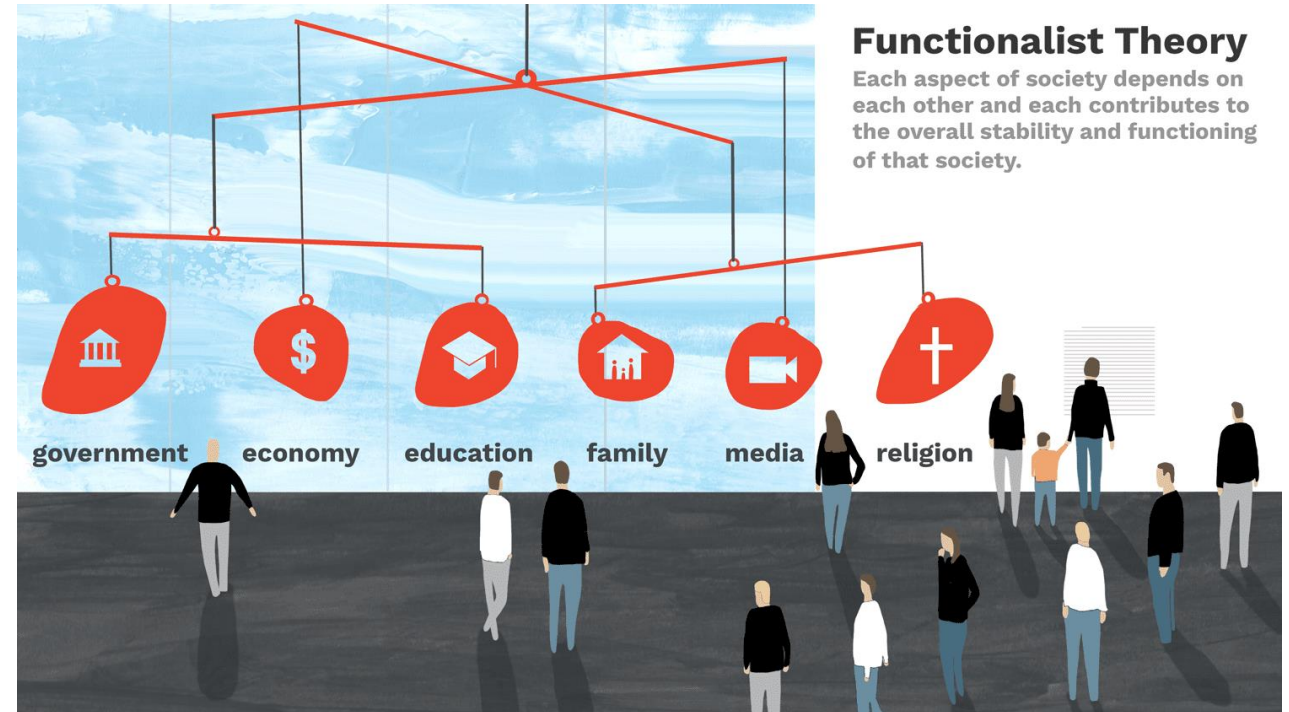
"Hypatia" by Illustrator Rachel Igotofsky

Part 1: Industrial Revolution in the Home

Cowan's article

Functionalism

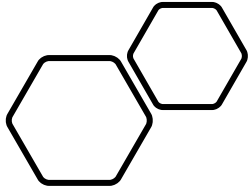
- Emile Durkheim and macrosociological stability → All parts of a society work together to form a coherent and cohesive whole and create social equilibrium
- What holds a society together and render it stable?
 - Similarities in individuals and a lack of differentiation and coordination of services provided
 - Creates mutual interdependence



Functionalist lens: relationship of family and tech

- Self-sustaining, self-reliant family as fundamental unit of society
- Production, consumption (food, clothes, education, entertainment, protection) happened at the level of family





Functionalist lens: relationship of family and tech

- Under industrialization, centers of production and consumption moved elsewhere
- (Middle/upper class, White) women were left with little to do, and no longer had much of a function
- Social bonds loosened → DIVORCE
- Narrative industrialized disruption and decay



Ruth Schwartz Cowan Industrial revolution in the home

August, 1928 LADIES' HOME JOURNAL

NEW! *Beads of Soap*

banish
washday
drudgery

*Super Suds dissolves quicker . . .
works faster . . . rinses out easier*

HERE is a way to wash clothes that's faster . . . easier . . . better. Saves one rinsing. Gets clothes whiter. A revolutionary discovery that brings you soap in the form of tissue-thin beads—the fastest-working form of soap ever made.

First bar soap—then chips . . . now Super Suds

Years ago women had only bar soap. How hard it was to rub the clothes with the soap and to rinse out those clinging soap particles.

Next came chips. Many women changed to this form of soap because it could be stirred into a cleansing solution. But clothes and dishes had to be rinsed very carefully in order to get rid of the undissolved soap.

Now comes Super Suds, and women are changing to it by thousands in preference to all other forms of soap because it dissolves twice as fast as any soap they have ever seen before.

Super Suds is not a chip . . . not a powder . . . but a remarkable new form of soap in tiny hollow beads, so thin that they burst into suds the instant they touch water.

Four times as thin as chips, Super Suds

is the thinnest soap made. In this new soap women have discovered two distinct advantages.

First, Super Suds is so thin it dissolves instantly . . . saves time and trouble.

Second, Super Suds dissolves completely . . . no undissolved soap to leave spots on clothes or film on dishes. Women like Super Suds because it does the work faster and better than other forms of soap.

Super Suds is simply wonderful for dishes. It makes them sparkle and glisten like jewels, and yet you never even touch a dish towel. Just give them a quick hot rinse—and let them drain!

Already thousands of progressive women have been delighted with Super Suds. Won't you try it today? Just say "Super Suds" and your grocer will hand you the biggest box of soap you have ever seen for ten cents!

An Octagon Soap Product. Every box of Super Suds carries a premium coupon, our discount to you!

A PREVIOUS PRIZE: Same soap is made by a firm which is not named. Please, please, and please, please, do not buy Super Suds from any other source. The only way to get the best is to buy from the source. The only way to get the best is to buy from the source. The only way to get the best is to buy from the source.



OCTAGON Super Suds

Coupon

The BIGGEST box of soap on the market for 10¢

“Did technological change in household appliances have any effect upon the structure of American households, or upon the ideologies that governed the behavior of American women, or upon the functions that families needed to perform?”

“It seems odd to speak of an "industrial revolution" connected with housework, odd because we are talking about the technology of such homely things, and odd because we are not accustomed to thinking of housewives as a labor force or of housework as an economic commodity--but despite this oddity, I think the term is altogether appropriate.”

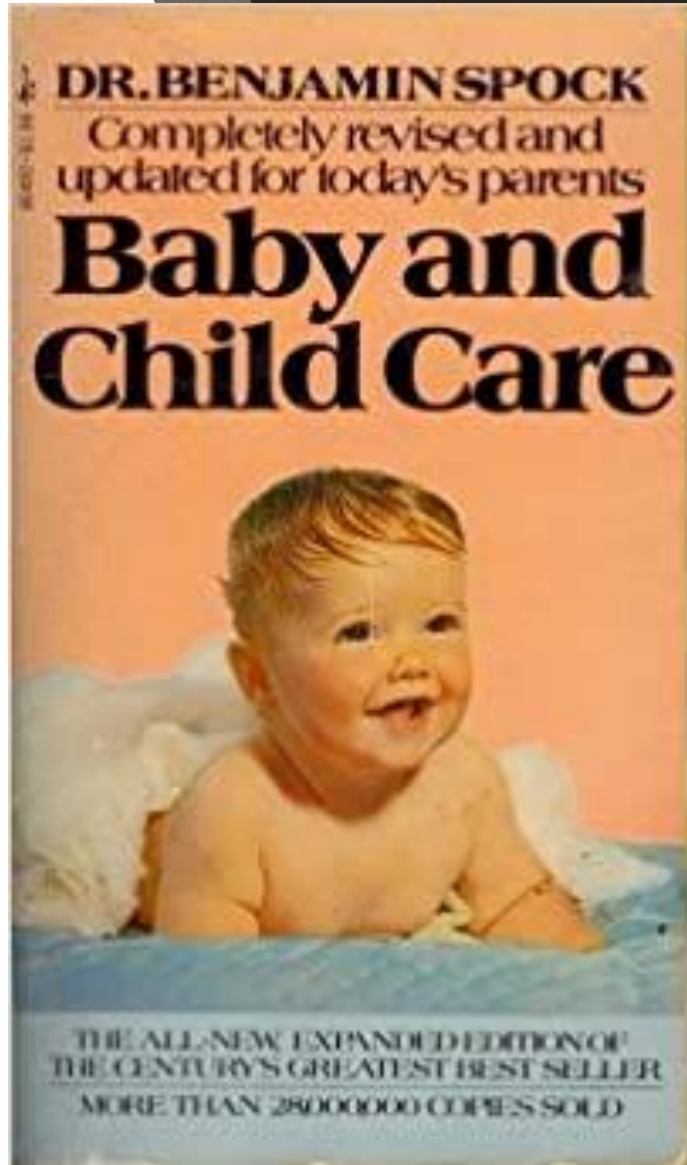
Go to www.menti.com and use code 73 68 601

Ruth Schwartz Cowan

Did new technology lead to social/family decay



- “Middle-class housewives, the women who must have first felt the impact of the new household technology, were not flocking into the divorce courts or the labor market or the forums of political protest in the years immediately after the revolution in their work.”
- Go to www.menti.com and use code **73 68 601**



Ruth Schwartz Cowan

What does it mean to be a mother

- Did time-saving devices actually save time?
- “The average housewife had fewer children than her mother had had, but she was expected to do things for her children that her mother would never have dreamed of doing: to prepare their special infant formulas, sterilize their bottles, weigh them every day, see to it that they ate nutritionally balanced meals, keep them isolated and confined when they had even the slightest illness, consult with their teachers frequently, and chauffeur them to dancing lessons, music lessons, and evening parties.”

Go to www.menti.com and use code **73 68 601**

Case study: migrant works and industrialization in the home in Singapore

- “The significant change in the structure of the household labor force was the disappearance of paid and unpaid servants (unmarried daughters, maiden aunts, and grandparents fall in the latter category) as household workers-and the imposition of the entire job on the housewife herself.”
- Singapore as Smart Nation: <https://www.youtube.com/watch?v=5NzZy36L2v4>
- Samsung Family Hub Refrigerator: <https://www.youtube.com/watch?v=vFJYV7CSkJ4>
- Samsung Jet: <https://www.youtube.com/watch?v=GbdWMOBic0Y>
- No Rest and Low Pay: Singapore’s Bangladeshi Cleaners: <https://www.home.org.sg/statements/coming-clean>
- Respect our Rights Documentary: <https://research.uwcsea.edu.sg/G8Migration/FDW>

In class analysis: Gender complexities and relationships of care mediated by technology

- Samsung India Service: <https://brandequity.economictimes.indiatimes.com/news/advertising/samsung-india-aims-to-show-you-how-samsungcares-in-its-new-ad-campaign/56325053>
- New device can help track elderly parents' home activities: <https://www.straitstimes.com/singapore/new-device-can-help-track-elderly-parents-home-activities>

Part 2: Women in the history of tech

Case study: Hidden Figures



<https://www.openculture.com/2019/12/download-beautiful-free-posters-celebrating-the-achievements-of-living-female-stem-leaders.html>

BASED ON THE UNTOLD TRUE STORY

MEET THE WOMEN YOU DON'T KNOW,
BEHIND THE MISSION YOU DO.

HIDDEN FIGURES



1.13.17

HIDDENFIGURESMOVIE.COM

Hidden Figures

- Hidden Figures:
<https://www.netflix.com/watch/80123775?trackId=13752289&tctx=0%2C0%2Cff5c5a8ee261e5ac56e4bf7cb27e80475e22120a%3A79e6f1fe30c0a7a02cd4d265754c7a4d3c3ba1cf%2Cff5c5a8ee261e5ac56e4bf7cb27e80475e22120a%3A79e6f1fe30c0a7a02cd4d265754c7a4d3c3ba1cf%2C%2C>
- White Savior complex in Hollywood movies:
<https://www.youtube.com/watch?v=TRTnuJvg6U>

Case study: the history of the rape kit



Case study: Singaporean women leaders in STEM (Dutta article)



- Women's discursive constructions of leadership in STEM careers in the Asian context of Singapore
 - What are women being told about being leaders in STEM and how do they respond?
- Challenges faced by women in STEM fields:
 - Higher teaching loads
 - Smaller start-up packages/research spaces
 - Lower salaries
 - Sexist worldviews
 - Woman as mother
 - Not serious or focused enough
 - Work-home balance and conflictual gender relationships at home, where women are primary managers, or 'Tiger Moms'
 - Asian/Confucian values of masculine responsibility (actor categories?) and the reification of these values in institutional organizations
 - hiring less qualified men [case of single woman, Jazreel]

Case study: Singaporean women leaders in STEM (Dutta article)



- Women's discursive constructions of leadership in STEM careers in the Asian context of Singapore
 - What are women being told about being leaders in STEM and how do they respond?
- Leadership as inherently masculine
 - Leadership means being 'aggressive' but this conflicts with cultural traits of passivity in women → women should not be aggressive
 - Women cannot act too confident or be too assertive, but need to be assertive to move ahead in an organization. Women have to be agreeable and accommodating
 - Women are not seen as risk-takers
 - Women are not seen as experts in their STEM domain

Thank you!

