

Winners Write the Histories

Slide 1

Agenda

- A Question
- Quiz
- First Computer
- Break
- Census
- Panel

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Slide 2

A Question

- Write down a question/observation/puzzle you have about the readings.
- Turn it in. I'll read them during the quiz.

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Slide 3

Why study history?

- History is not the past. It's the context for the present.
- Large component of social shaping

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Slide 4

Key Concepts

- Path Dependence
 - Available decisions are constrained by past decisions
- Contingency
 - Occurring or existing if other circumstances are the case

Example: QWERTY Keyboard

- Spark podcast
 - What you thought you knew about QWERTY is wrong
 - Illustrates path dependence and what gets remembered
- Path dependence
 - Typewriters → Computers
 - Alternative paths?
 - Morse code
 - Dvorak keyboard
- Contingencies
 - Typing contests
 - Competition
 - Skill

Exercise

- Form pairs
- Think of one thing that you use a computer
- Think of how it would have been accomplished prior to computerization

- Example: Looking up final exam date, time, and schedule

What was the first computer?

- Depends on what you mean by computer.

- As I go through the evolution, observe your own instinctive judgements about what counts as a “real” computer.

From People to Devices

- Calculator was some one who calculated.
- Computer was some one who computed.

- Bookkeeping
- Mathematical Tables
 - Logarithms
 - Roots
 - Ballistic Trajectories

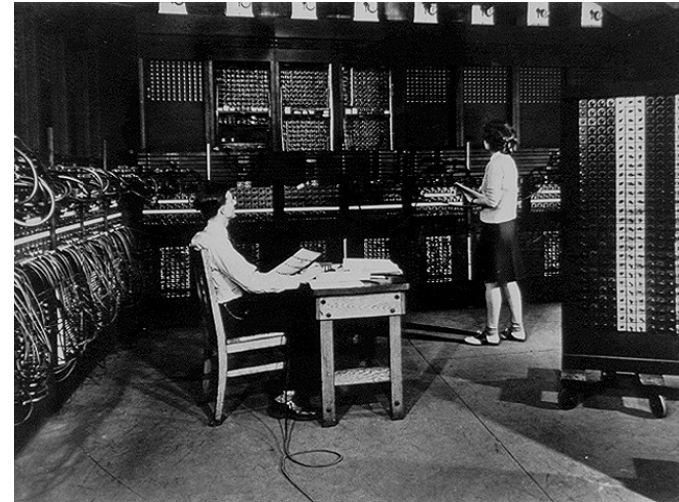


Photo from <http://www.computinghistory.org>

Aside: Deskilling and Feminization

- Quinn: “The adoption of mechanical calculators led to the “deskilling” and “feminization” of bookkeeping.”
 - In 1880, 5.7% of bookkeepers, cashiers, and accountants were women
 - In 1910, 38.5%

- Gilded Age in US 1865-1900 (economic)
- Progressive Era in US 1890s-1920s (social)
 - Women’s suffrage
 - Corruption and prohibition
 - Modernization and efficiency
 - Education

Antikythera Mechanism

- Analog computer used in navigation
 - Predict astronomical positions
 - Dated 2nd Century BCE

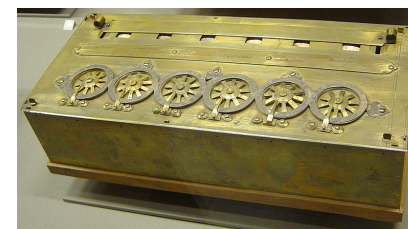


From Atoms to Bits

- **Electric**
 - Hollerith Electric Tabulator (1880)
- **Electronic**
 - Vacuum tubes (1939)
 - Transistors (1948)
 - Integrated Circuits (1957)

From Single to Multi Purpose

- **Arithmetic**
 - Hand cranked mechanical adding machines
 - Pascaline (1652), Arithmometer, Difference Engine (1820-1850)
- **Ballistics tables**
 - ENIAC (1941)
- **Programmable**
 - Colossus (1943+)
- **Stored Program**
 - EDSAC (1949)



Break

Role of the Census in History

- **Census data has been a driver of commercial innovation**
- **Hollerith Tabulating Machine**
 - Went into production to meet needs of 1890 US census
 - Took 8 years to tabulate the 1880 census
 - Used punch cards
 - Initially used in Jacquard looms
- **UNIVAC I**
 - Produced for the 1951 US census
 - Commercial descendent of ENIAC computer

Uses of Census Data

- Urban planning
 - Roads, schools
- Social planning
 - Unemployment offices, child tax benefits
- Economic
 - Setting poverty line and social assistance thresholds
- Non-market activities
 - Unpaid work, long term unemployed

Race Data

- Biological fact or social construct?
- Collected on census in multiple ways

The census has collected information on the ancestral origins of the population for over 100 years to capture the composition of Canada's diverse population.

17 What were the ethnic or cultural origins of this person's ancestors?

An ancestor is usually more distant than a grandparent.

For example, Canadian, English, French, Chinese, Italian, German, Scottish, East Indian, Irish, Cree, Mi'kmaq (Micmac), Métis, Inuit (Eskimo), Ukrainian, Dutch, Filipino, Polish, Portuguese, Jewish, Greek, Jamaican, Vietnamese, Lebanese, Chilean, Salvadorean, Somali, etc.

19 Is this person:

Mark "X" more than one or specify, if applicable.

This information is collected to support programs that promote equal opportunity for everyone to share in the social, cultural and economic life of Canada.

- White
- Chinese
- South Asian (e.g., East Indian, Pakistani, Sri Lankan, etc.)
- Black
- Filipino
- Latin American
- Southeast Asian (e.g., Vietnamese, Cambodian, Malaysian, Laotian, etc.)
- Arab
- West Asian (e.g., Iranian, Afghan, etc.)
- Korean
- Japanese
- Other — Specify

Why Collect Race Data?

- What is race?

Example: Census in India

- Why India?
 - Similarities: Former colonies, democracies, multicultural
 - Differences: Immigration, proportion living in poverty, education

Example: Census in India

- 2011 census asked about caste for the first time since 1931
- Q. 8: If Scheduled Caste, write name of the Scheduled Caste from the list supplied
- Q. 9: If Scheduled Tribe, write name of the Scheduled Tribe from the list supplied
- Hindu castes and tribes were identified in the constitution (1950)
 - Scheduled castes and tribes given “reservations” (quotas)
 - Viewed as needing help to be lifted out of poverty, or “backwardness”

Caste Data

- What counts as a caste?
 - Social class
 - Factors include ethnic group, religion, location, and occupation
- Why count castes?
 - To know how much to allocate
 - To know whether social programs are working
- Why not count castes?
 - Discriminatory
 - Over-simplification

Alternatives

- Previous census used a code
 - Relied on respondent going through list of 1108 castes and 645 tribes
- UID
 - Universal identifier
- Hierarchical Code
 - Division.Subdivision.Group.Family.Occupations
 - 10.30.116.2954

Castes and Race

- Biological fact or social construct?
- Social discourse tends to be fluid
- Computer codes are rigid and do not carry context

Panel

- In 1972, The People's Computer Company wrote, "Computers are mostly used against people instead of for people, used to control people instead of to free them..."
- Does your computer control you? What evidence do you have that it does or does not?
- Are computers used to control people in general?
- Take a minute to think in silence.
- Discuss with your neighbours.