Unit 2 Help Lecture

CSCI1800
Dr. Aaron Sidney Wright
asw@dal.ca

Agenda

1. Mid-Term Feedback on CSCI1800
2. Unit 2 Orientation
3. Student Topic: The Moore School
4. Student Topic: Schools vs Others
5. Student Topic: Eckert and Mauchly later
6. Your questions

Use these slides on your own: https://g.aaronswright.com/.

Midterm Feedback on CSCI1800

34 of 390 students gave mid-term feedback on CSCI1800 through Dal's SRIs

Example feedback

- Want: More videos / lectures
- Want: Due Dates on BrightSpace Calendar / Checklists
- Want: More / earlier feedback
- Dislike: Team plans / time zone scheduling
- Like: Worksheets / Samples / Templates
- Like: Teamwork / Intro videos
- Like: Office Hours/ quick replies on Discussion Board

Midterm Feedback on CSCI1800

Changes so far

- Due Dates on BrightSpace Calendar / Checklists
- Team plans / time zone scheduling: Better instructions
- Coming up in Unit 3: interactive guest lecture with Dr. Helen He on accessible design (4:05-5:25 Mon. Nov 2)

Unit 2 Orientation

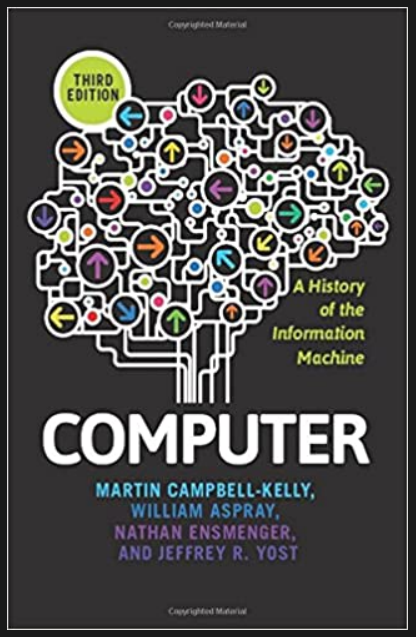
Use the Schedule in the Course Syllabus

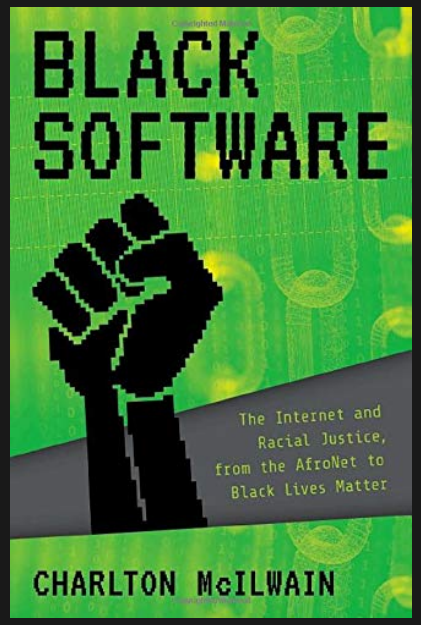
CSCI1800_Fall2020 : Schedule

Unit	Week	Date	Due Dates	Tutorial	Tutorial Activity	Notes
Unit 0. Introduction	Week1	Mon., Sep. 7,		Week1 Tutorial	None	LabourDay
		Tue., Sep. 8,				
		Wed., Sep. 9,				
		Thu., Sep. 10,	Open Office Hour, 10AM Atlantic and 4PM Atlantic			
		Fri., Sep. 11,	Introductory post			
		Sat., Sep. 12,				
		Sun., Sep. 13,				
	Week2	Mon., Sep. 14,	Team Charter, due 5pm Atlantic	Week2 Tutorial	Synchronous Practice Session: active reading / note taking	
		Tue., Sep. 15,				
		Wed., Sep. 16,	Team Plan Unit 1, due 5pm Atlantic			
		Thu., Sep. 17,	Open Office Hour, 10AM Atlantic and 4PM Atlantic			
		Fri., Sep. 18,				
		Sat., Sep. 19,				
		Sun., Sep. 20,				
		Mon., Sep. 21,	Synchronous help lecture, 4:05-5:25 Atlantic			

Schedule

Unit 2 Readings



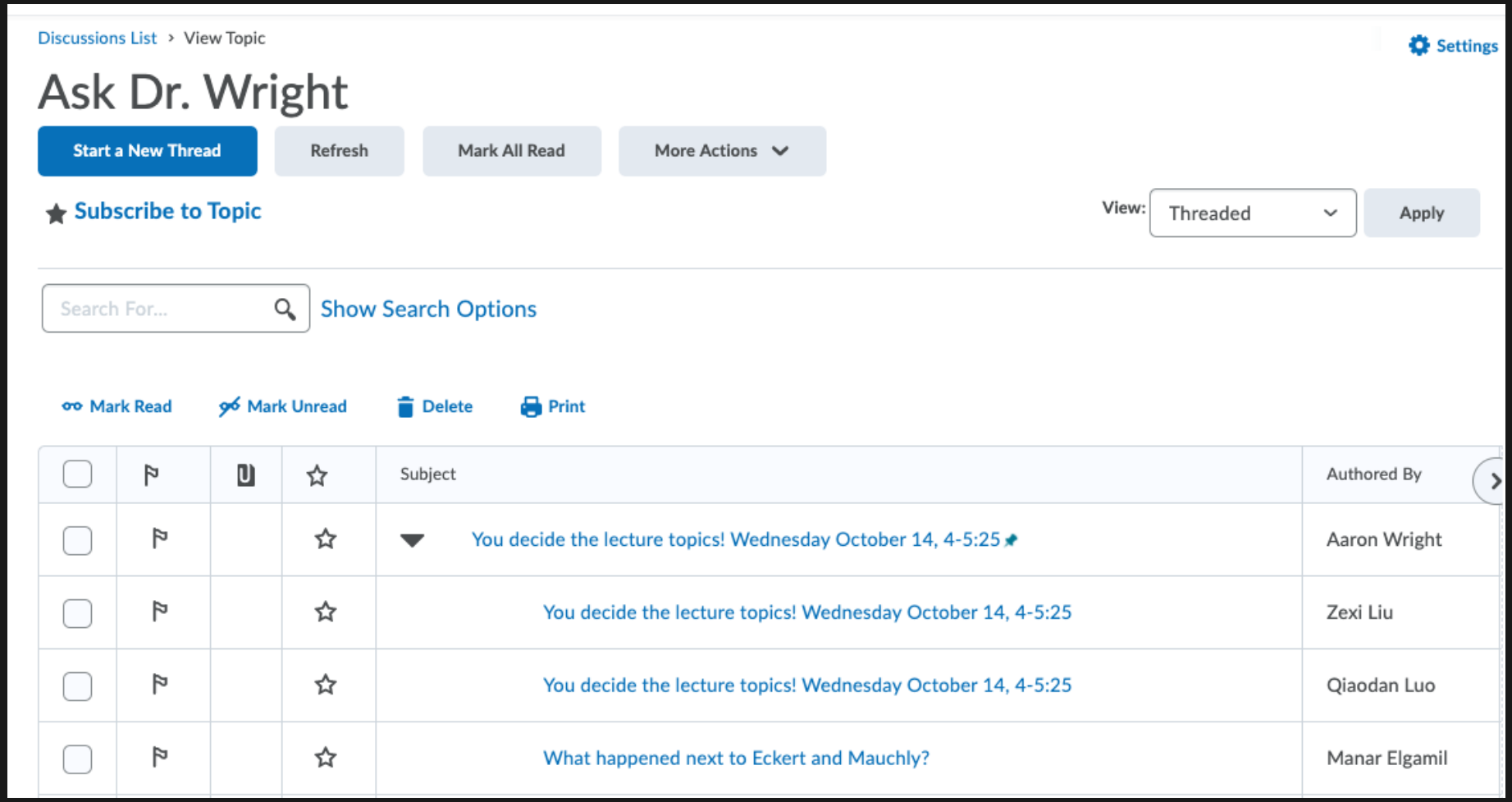


Campbell-Kelly et al. (2014), Chapter 4: Inventing the Computer, Chapter 5: The Computer Becomes a Business Machine, PHOTOS: From Babbage's Difference Engine to System/360 and Chapter 2: The Tech School Route from McIlwain (2020) *Black Software*.

Unit 2: Orientation

- Essay Topic 1: Schools and Education
- Essay Topic 2: Connect to Civil Rights
- Essay Topic 3: Connect to Entrepreneurs

Unit 2: Student Topics



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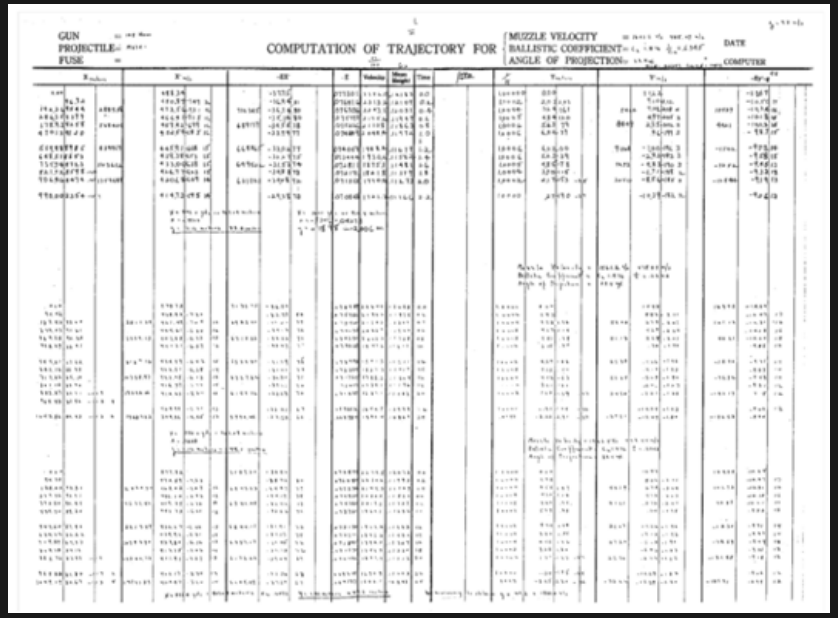
Student Topic 1: The Moore School

Moore School of Electrical Engineering (U Penn) around 1940.

A woman tests a machine gun at Aberdeen Proving Grounds, 1942.

Aberdeen Proving Ground

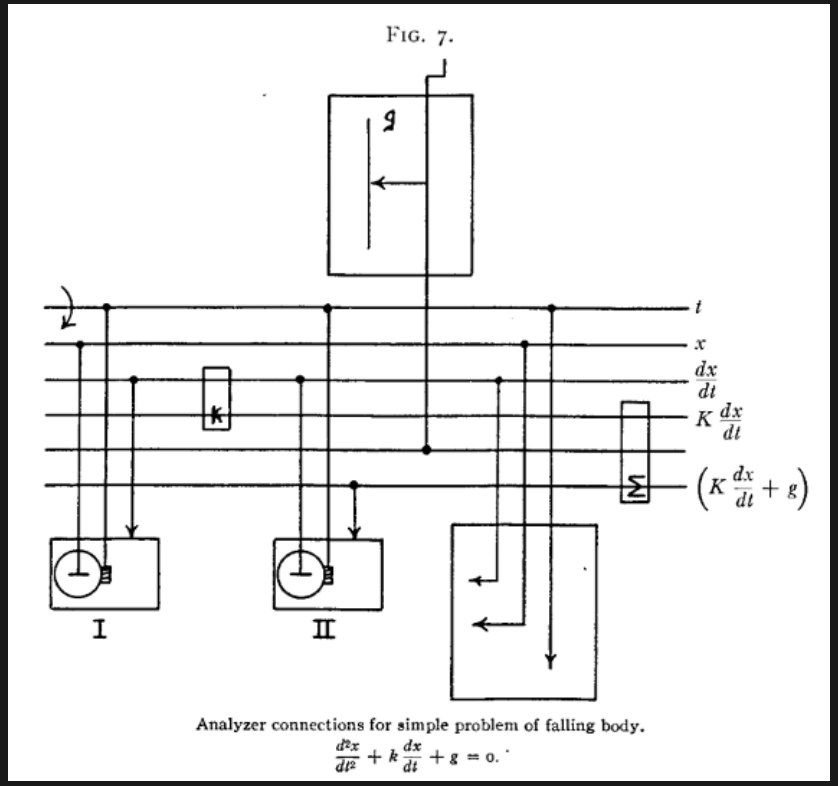
- Ballistics Research Laboratory
- Main activity: mathematical ballistics
- Founded in WWI
- Initially ~30 people.



Firing table (Polachek 1997, doi:10.1109/85.586069).

Bush's Differential Analyzer

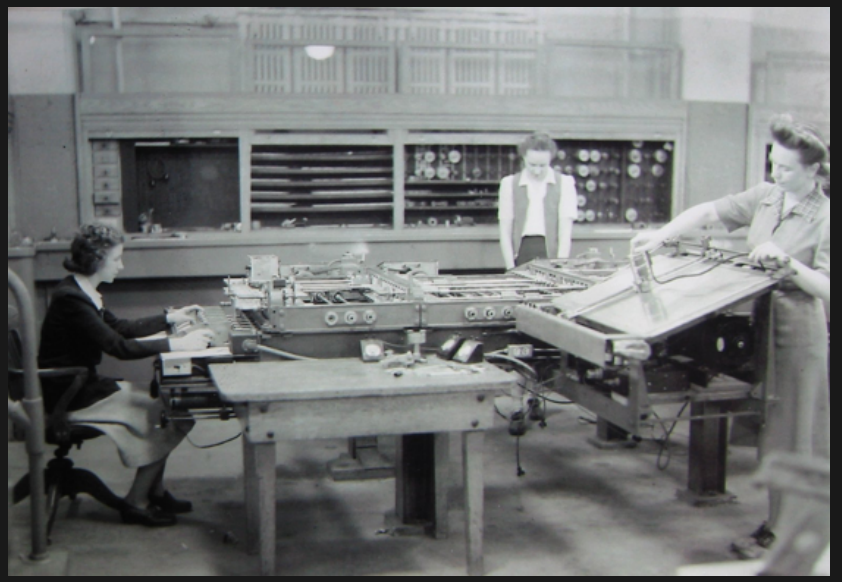
Analog computing solving differential equations



Credit: Bush (1931) doi: 10.1016/S0016-0032(31)90616-9

Pre-ENIAC Analog Computing

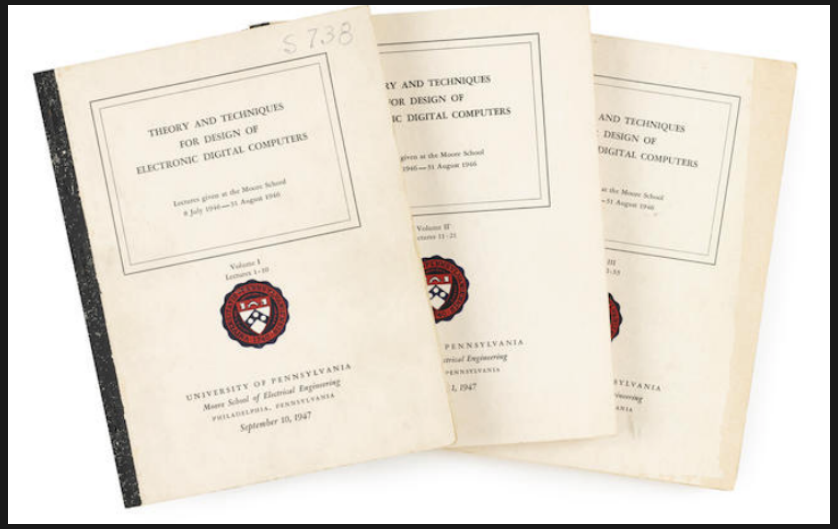
Kay McNulty, Alyse Snyder, and Sis Stump operate the differential analyser “Annie” in the basement of the Moore School of Electrical Engineering, U Penn, ca. 1942. Photo: US Army



Credit: US Army.

Summary: Moore School

- Coordinated with US Army
- Analog and digital computing
- Strong roles for women
- Impacts: technology, careers, innovations...
- What is the most important thing about the Moore School in the Campbell-Kelly et al. book?



Moore School Lectures. (Credit: Bonhams)

Student Topic: Education Compared

How should we compare educational institutions?

Moore School of Electrical Engineering (U Penn) around 1940.

Ad for DeVry Technical Institute (1958).

Basis for Comparison

Other Schools

- Facilities
- Ranking
- Quality of education
- Number of students
- Programs offered
- Finances
- Types of students
- Impact of graduates

Basis for Comparison

DALHOUSIE UNIVERSITY

Other Economic Impacts in NS (ex: Tourism)

- Budget
- # People at Dal / Tourists
- Costs to Government
- International affairs/ connections
-

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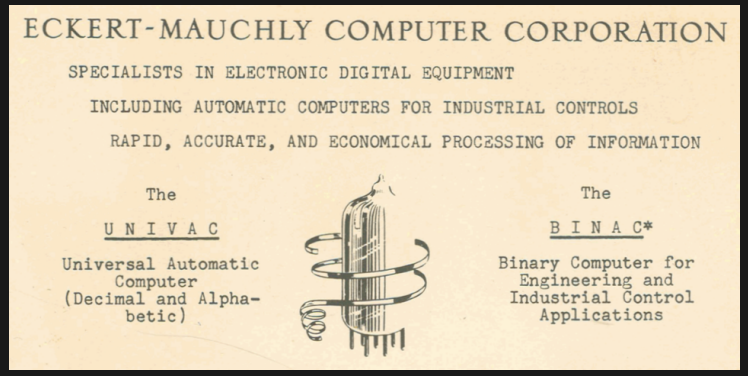
Student Topic: Eckert Mauchly later

Eckert-Mauchly Computer Corp. Engineering Group—1949. Row 1: Fran Morello, Bob Shaw, Pres Eckert, Brad Sheppard, Frazer Welsh, John Mauchly, Jim Weiner, Al Auerbach, Betty Snyder; Row 2: John Sims, Marv Jacoby, Paul Winsor, Gerry Smoliar, Art Gehring, Betty Jay, Ed Blumenthal, Bob Mock, Jean Bartik, Herman Lukoff, Bernie Gordon, Ned Schreiner; Row 3: George Gingrich, Marv Gottlieb, Lou Wilson, Doug Wendell, Charlie Michaels, Ben Stad, Si Levitt, Larry Jones.



"Eckert-Mauchly Computer Corp. Engineering Group - 1949. Row 1: Fran Morello, Bob Shaw, Pres Eckert, Brad Sheppard, Frazer Welsh, John Mauchly, Jim Weiner, Al Auerbach, Betty Synder; Row 2: John Sims, Marv Jacoby, Paul Winsor, Gerry Smoliar, Art Gehring, Betty Jay, Ed Blumenthal, Bob Mock, Jean Bartik, Herman Lukoff, Bernie Gordon, Ned Schreiner; row 3: George Gingrich, Marv Gottlieb, Lou Wilson, Doug Wendell, Charlie Michaels, Ben Stad, Si Levitt, Larry Jones." (CHM).

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- Died: 1980 Pennsylvania
- 1933 PhD Physics, John's Hopkins
- Instructor in Moore School
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- 1960–: Consultant

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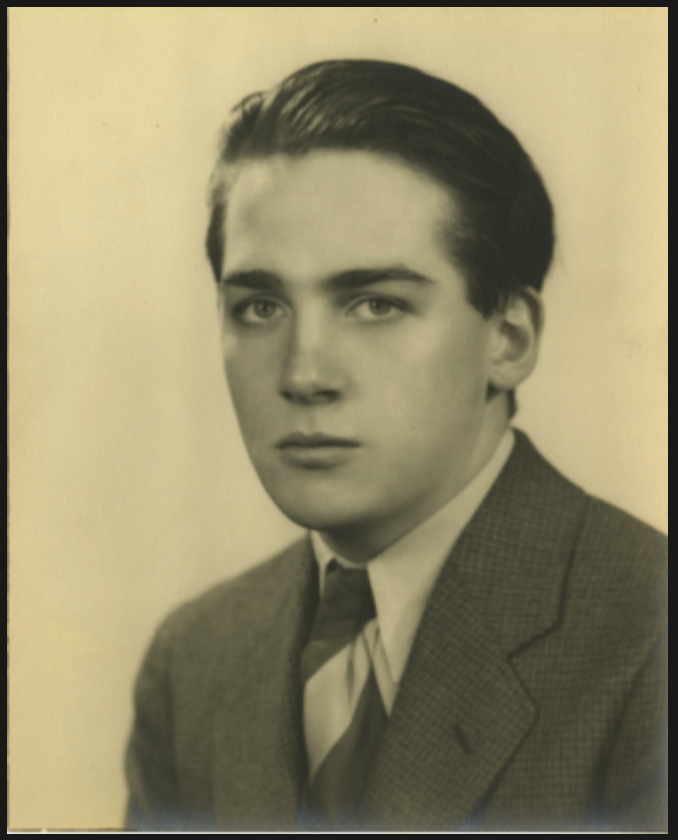

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Questions?

- Ask Dr. Wright forum: search strategies
- Thesis statement for comparing educational instututions
  1. Identify (multiple) bases for comparison
  2. Assess the instututions
  3. Propose a reason that explains the differences/ similarities

     "The quality of education [1] at Dalhousie is better than at UBC [2] because of the snow in Halifax [3]."

Thank you for coming!

Dr. Aaron Sidney Wright

CSCI1800 Fall 2020

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