#### Blogs

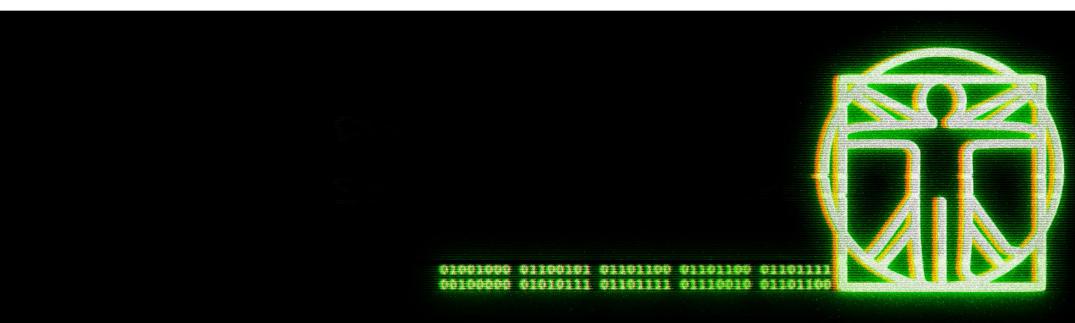
- Use links, check if they work!
- Use images and other media
- Mind grammar/syntax
- Mind the text walls
- Use (and keep on using) Categories for your group
  - Tags can be used to keyword content
- Read and comment on other people's work (start with your group)
- No user account for the website? Let us know!

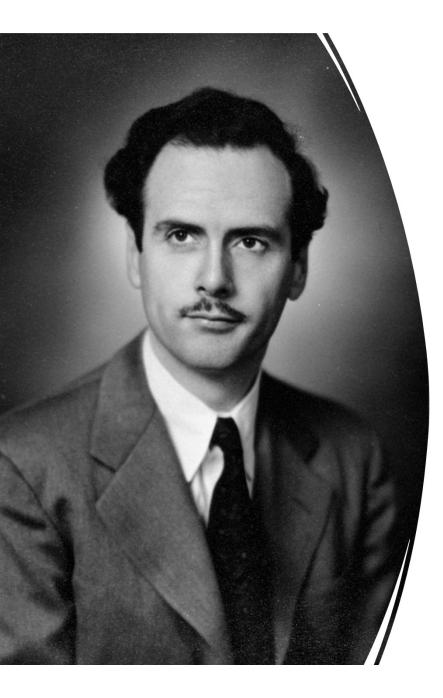


#### Good job!

#### Digital Media, Society, and Culture

Angus A. A. Mol

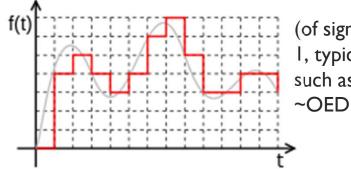




### "The Medium is the Message"

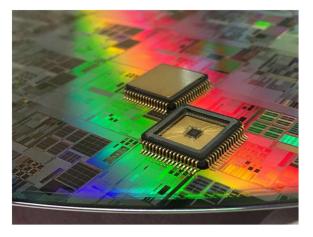
Marshall McLuhan (1964, *Understanding Media*)

#### The Digital at its most basic



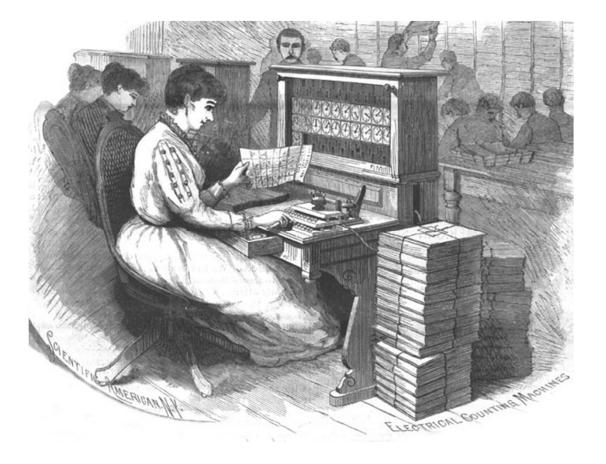
(of signals or data) expressed as series of the digits 0 and 1, typically represented by values of a physical quantity such as voltage or magnetic polarization.

"WELCOME BACK TO CLASS" in binary code



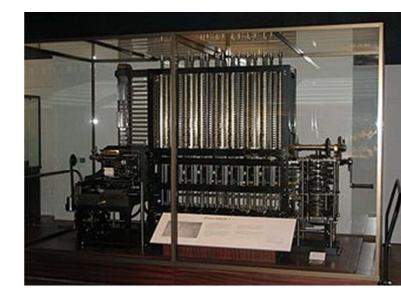
A computer is a set of integrated circuits of transistors ("microchip") through which electricity flows in on/off patterns.

#### The First Computers



#### Babbage's Analytical Engine and Lady Lovelace





Working model in London's Museum of Science





So it was that in 1843, Ada Lovelace wrote the first paper on computer science, including the earliest complete computer program...

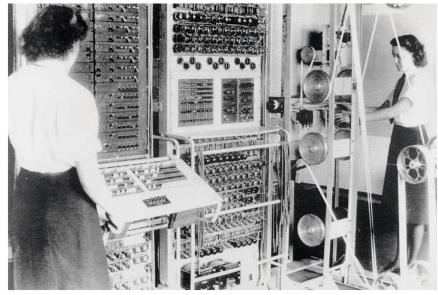
#### War Machines



IBM 701 (1952): ordered by the NSA



Vacuum tubes from the ENIAC computer



First Electronic Computer: Colossus codebreaker (1944)

		Π										1	Γ	1								I																																
	1						1	1			1						1	T	1		-																												1					
00000	0 0	0	0 0	0 0	10	0	0 0	0	h	0 0	0	0 0	0	0	0	0	6	0 0	r	0	0 0	0 0		0 0	0 0	0 1	0 0	0	0 0	0	0 0	0 0	0	11 0	0	0 1	0 0	0	0 0	0	0.0	0 0	0	0 0	0 0	0	0 0	0 0	0	-			0	0
12345	6 1		3 10	it t	2 13	14	15 15	17	18	19 21	1 21	22 2	3 24	25 3	16 27	28	28 1	0.3	32	33	34 3	5 36	37 :	38 3	9.40	41.4	7 43	44	45 41	6 47	48 4	9 50	51 1	52 53	3 54	55 5	6 57	58	59 6	0 61	82.8	13 64	1 65	66 6	7 68	69	70 7	1 72	1 73	74	75 7	\$ 77	78	78 8
1 111	11	1	11		11		1	1	1	11	1	1	1		11	1	1	11	L		1	1	1	11	11	1	11	1	11	11	1	11	1	11	1	1	11	1	11	1	1	11	1	1	11	1	11	11	1	1	11	11	1	1
2 2 2 2 2 2	2 2	2 2	2 2	2 2	2 2	2	2 2	1	2	2 2	2	2 2	2	2	2	2	2	2 2	2	2	2 2	2	2	2 2	2 2	2	2 2	2	2 2	2 2	2 :	2 2	2	2 2	2 2	2 :	2 2	2	2 2	2	2 :	2 2	2	2 1	2 2	2	2 1	2 2	2	2	2 2	2 2	2	2
3 3 3 3 3	3 3	3 3	3 3	3 3	3 3	3	3 3	3		3	3	3 3	13	3	3	3	3	3 3	13	3	3 3	3 3	1	3 3	3'3	3	3 3	3	3 3	3 3	3 :	3 3	3	3 3	3	3	3 3	3	3 3	13	3 :	3 3	3	3 :	3 3	3	3 3	3 3	3	3	3 3	3 3	3	
4 4 4 4 4	44	4	4 4	4 4	14	4	4 4	4	4	4 4	4	4	4	4	4-4	4	4	4 4	4	4	4 4	4 4	4	•	14	4	4 4	4	4 4	14	4	14	4	4 4	4	4	4 4	4	4 4	4	4 1	4 4	4	4 4	14	4	4 4	14	4		4 4	4 4		4
5 5 5 5 5	5 5	5 5	55	5 5	5	5	5	5	5	5 5	1	5 :	1	5	5 5	i 5	5	1	5	5		5 5	5	5 5	5	5	5 5	5	5 5	5 5	5 !	5 5	5	5 5	i 5	5 !	5 5	5	5 5	5	5 5	5 5	5	5 5	5 5	5	5 5	5 5	5	5	5 5	5 5	5	5
66666	6 8	6 6	6	6	6	6	6 6	6	6	6 6	6	6 1	6 6	6	6 6	6 6	6	6 6	6	6	6 1	6 6	6	6 6	6 6	6	6 6	6	6 8	5 6	6 1	6 6	6	6 6	6 6	6	6 6	6	6 6	5	6 1	6 6	6	6 1	6 6	6	6 8	5 6	6	6	6 8	5 6	6	6
,,,,,	7	1	11	1	11	7	11	1	1	7	1	1	11	1	11	11	1	11	17	1	1	11	1	1	1	1	17	1	11	11	1	11	1	11	17	1	11	7	11	1	1	11	1	11	11	7	11	11	1	7		17	7	1
88888	8 1	8 8	8 8	8	I	8	8	8	1	8 8		8		8	8	8	8		8	8		8 8		8 1	8	8	8 8	8	8 8	8 8	8	8 8	8	8 8	8 8	8	8 8	8	8 8	8	8 1	8 8	8	8 1	8 8	8	8 5	3 8	8	8	8 8	8 8	8	8
9 5 9 9 9	9 0		9	9	9.9	9	9 9	19	9	9 0	9	9	19	9	9 9			9 9	9 9	9	9 !	9 9	9	9 9	9 9	9	9 9	9	9 9	9 9	9	9 9	9	9 9	9 9	9	9 9	9	9 9	9	9	9 9	9	9 9	9.9	9	9 9	1 9	9	9	9 0	9 9	9	9

Hollerith-kaart/punch card

, Glass tube

- Anode

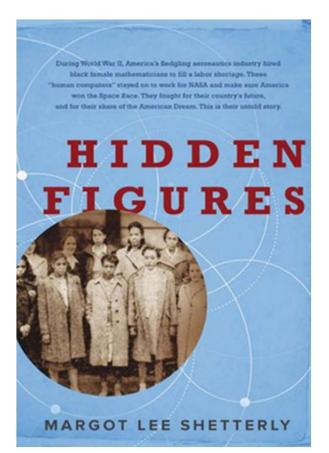
Heated

cathode Heater

#### Computers: The Hidden Figures of the Space Race



Katherine Johnson working as a computer at NASA in 1966





#### The 'First' Computer Scholar



Father Roberto Busa (in 2006)



Thomas Watson (founder of IBM)

What is the metaphysics of presence in St. Thomas Aquinas?: praesentia, praesens + proposition

"I knew, the day I was to meet Thomas J. Watson, Sr., that he had on his desk a report which said IBM machines could never do what I wanted. I had seen in the waiting room a small poster imprinted with the words: 'The difficult we do right away; the impossible takes a little longer.'"

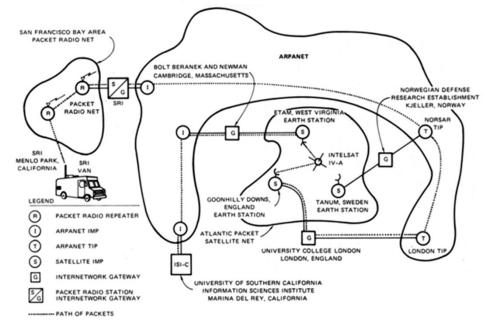
- Roberto Busa, 1980



Tim-Berners Lee, inventor of the WWW

AO

#### From ARPANet to World Wide Web



#### Log of first ARPANet message

2900767	2100	LONDED OP. PROGRAM	SK
		CONDED OP. PROGRAM EDIZ BEN BARKER BBY	
			dela
	22:30	talked to SRC Host to Host	CXC
		Leftor in Trogram	rste
		Funning after sending	
		to inp.	



'Fathers of the internet' Vint Cerf & Bob Kahn

### CompuServe hobbynet EUnet

#### 80s/90s: The Digital Revolution







#### The Post-Digital Age (2010s): Entanglement of the Analog and the Digital



Commander in Tweet



Smartphone "Condom"



Pokémon Go



Facebook as Political Power



"Data is the new oil"

0100 0110100 .... and *that* was in the 'before times'!







+15.3%



zoom

Tesla is restarting production today against Alameda County rules. I will be on the line with everyone else. If anyone is arrested, I ask that it only be me.

Т

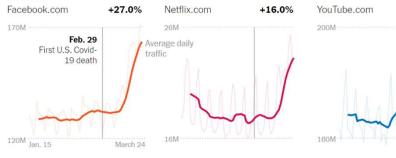
1:36 PM · May 11, 2020 · Twitter for iPhone





 $\vee$ 

Websites



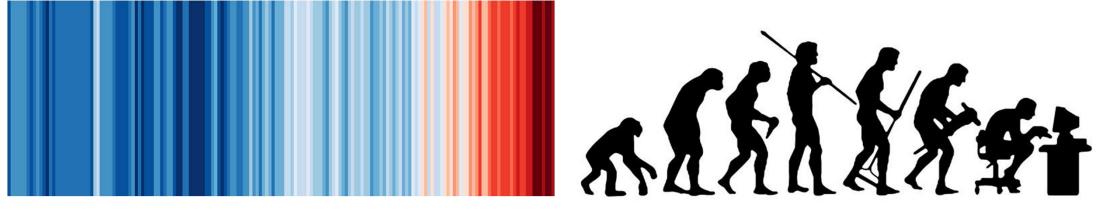




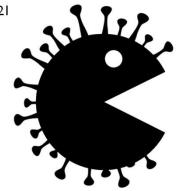
# Now: another crossroads in the electric age

6

#### Humanity faces multiple *crises* Human-made: Humanities' solutions?



Warming stripes (Ed Hawkins) Annual global temperatures, 1850-2021 Blue = cooler than normal Red = warmer than normal



Digital (R)evolution?





Visualization showing the number of trees needed to absorb the amount of CO2 generated by the global visits to google.com every second in 2016!

## Main takeaway

The 'Digital', and its associated technologies, is not one medium and does not carry one message, *but* there is a core to its long history: the binary, electric signal.

Underlying message: "The message of any medium is the change of scale or pace or pattern that is introduced into human affairs." (McLuhan 1964: 8)

#### **Content Cue:**

What has changed in your (thinking about your) digital practice? In what ways is this change part of overarching cultural and societal developments?

Or

What analog technologies and practices are part of/at the roots of (a specific form of) digital technology?