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ENC 1102

Dr. Taylor

Initial Research Proposal

O's and 1's: Evolution of Computers from Adders to Running Computer Programs

An adder is a circuit that provides Boolean logic which can be used in simple mathematics. The adder was the first step in the process of making a full-fledged computer able to run programs. Then just a decade later they developed the first computer that can run programs marking a massive breakthrough in technology that affected nearly all fields of work. My question is what inventions and triggers led to the rapid development of the computer. In 1937, the adder was made and just 11 years later in 1948 the first computer to run programs was created (*Computers: Timeline of Computer History: Computer History Museum*). Personally, as a computer science major I have a unique interest in computers and am familiar with many of the inventions that are still used today in the modern computer. I hope to further my understanding in the process of getting to a modern computer and the individual inventions that triggered change.

I chose multimodal analysis because, as well as text, pictures provide a clearer perspective into what the inventions look like. Also, videos provide the unique ability to show most clearly what these inventions looked like while being used. The specific genres I am going to research include computer development, as well as circuitry since many of the earliest computers where fairly simple circuits compared to the modern computer. The history of computers is well tracked online and covered by many

scholarly sources such as universities like stanford (Copeland *The modern history of computing*). I intend to find reliable and worthy sources online that can invite me into the critical conversation relevant to the history of computers.

I chose these genres of computer development and circuitry because it is important to understand the start of computers when regarding the genre of computer development which relates well to my research question because I am trying to explore what landmarks in computer development allowed for such massive progress in just 11 years. As for circuitry, as mentioned above, computers were originally extremely simple and were at its core, circuits, which relates to my research question because I will be researching these old computers which were simpler. In fact, the computer ENIAC developed in 1946 required rewiring for each time you wanted to make a new computation (Wolfe *History of Computers*).

As for my timeline the next 3 weeks (week 5- week 8), I will start by casting a large net and trying to find as many helpful sources by that Wednesday of week 5. Then I will try to derive key research points from each of them and determine my favorites and weed out the weak ones by Friday of week 5. Week 6 I will make my rough-rough draft by Thursday then submit a rough draft by Friday and perform my peer-reviews. On week 7 I will complete my almost-final draft by Wednesday and after another round of review I will submit the literary review on Friday.

Selective Bibliography:

Copeland, B. Jack. “The Modern History of Computing.” *Stanford Encyclopedia of Philosophy*, Stanford University, 9 June 2006, www.plato.stanford.edu/entries/computing-history/.

"Computers: Timeline of Computer History: Computer History Museum." *Computers | Timeline of Computer History | Computer History Museum*, www.computerhistory.org/timeline/computers/. Accessed 31 Jan. 2025.

Wolfe. "History of Computers." *History of Computers*, homepage.cs.uri.edu/faculty/wolfe/book/Readings/Reading03.htm. Accessed 31 Jan. 2025.