Short History of Computing

By Billy AM

East -> West -> East

Zero

How can nothing be something?

Zero

- Philosophy question

- As a number in India around 9th Century

- Introduced to Islamic Civ by Al-Khwarizmi
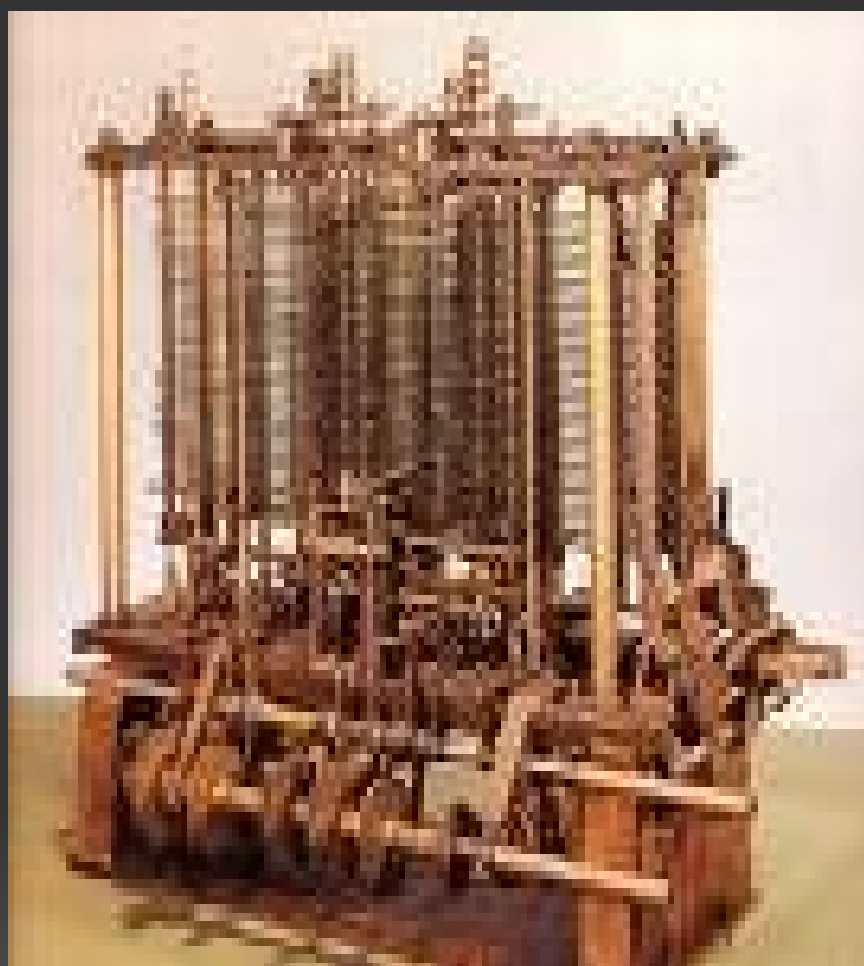
Al-Khwarizmi

The words *algorism* and *algorithm* stem from **Algoritmi**, the Latinization of his name.

Wrote on Al-Jabr -> Algebra

West Side Story

Charles Babbage

- Geek

- Originated the concept of a programmable computer
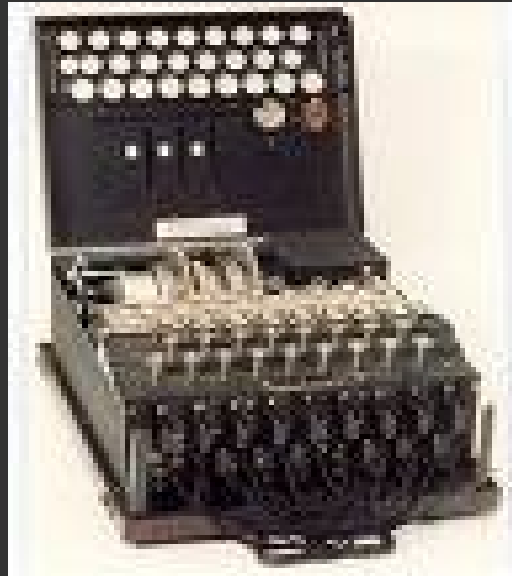
- Difference Engine

Herman Hollerith

- Founded *Tabulating Machine Company*

- Computing Tabulating Recording Corporation (CTR) in 1911

- Thomas J. Watson *as* first President
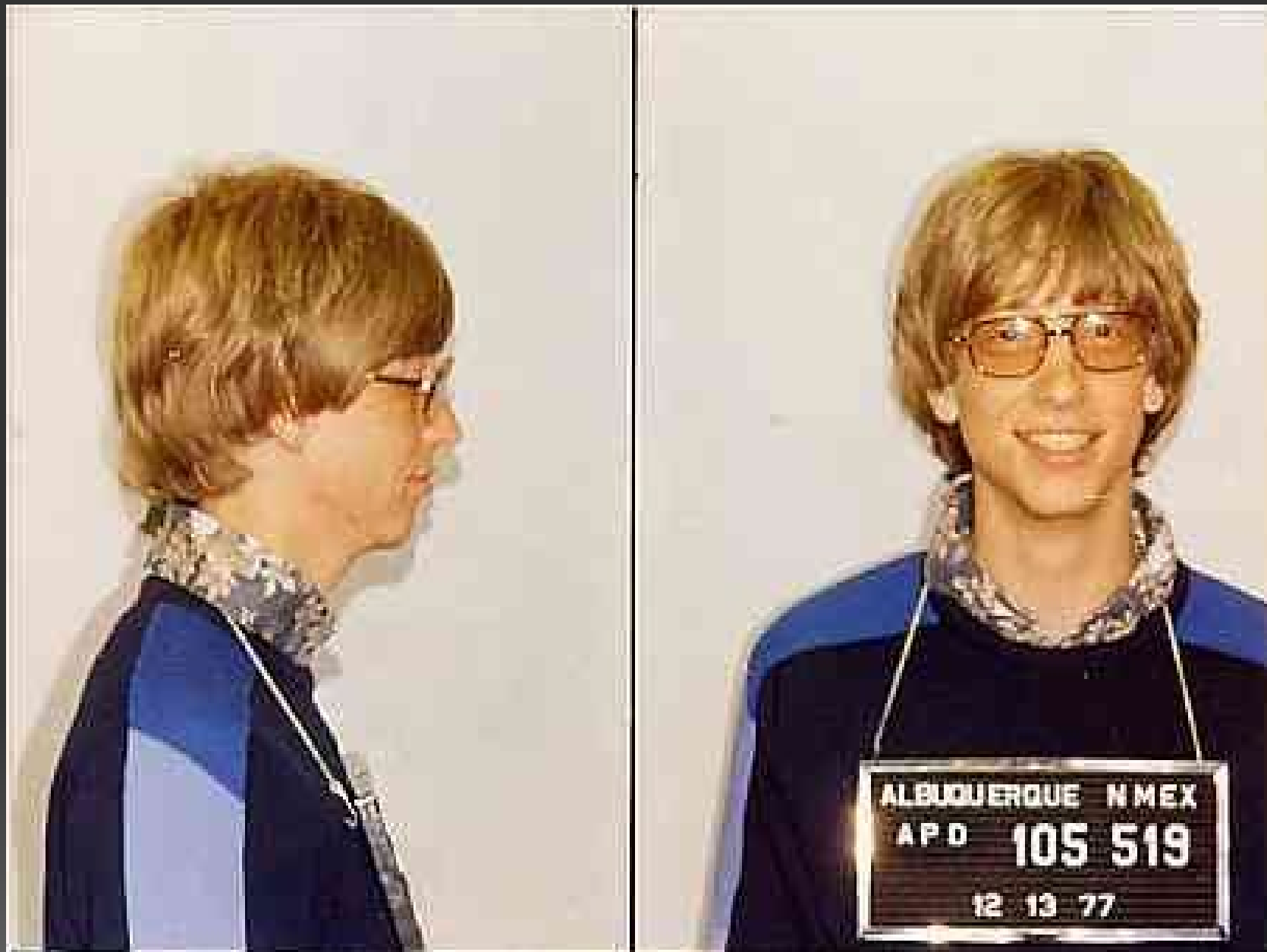
- 1924 , International Business Machine (IBM)

World War II

- Alan Turing

- Bletchley Park

- Hitler's Enigma Machine

Bell Labs

- 1969 , Unix by Dennis Ritchie and Ken Thompson

- 1970 , C Programming Language by Dennis Ritchie and Brian W. Kernighan

- 1983 , Bjarne Stroustrup developed C++

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An Open Letter to Hobbyists

To me, the most critical thing in the hobby market right now is the lack of good software courses, books and software itself. Without good software and an owner who understands programming, a hobby computer is wasted. Will quality software be written for the hobby market?

Almost a year ago, Paul Allen and myself, expecting the hobby market to expand, hired Monte Davidoff and developed Altair BASIC. Though the initial work took only two months, the three of us have spent most of the last year documenting, improving and adding features to BASIC. Now we have 4K, 8K, EXTENDED, ROM and DISK BASIC. The value of the computer time we have used exceeds $40,000.

The feedback we have gotten from the hundreds of people who say they are using BASIC has all been positive. Two surprising things are apparent, however. 1) Most of these "users" never bought BASIC (less than 10% of all Altair owners have bought BASIC), and 2) The amount of royalties we have received from sales to hobbyists makes the time spent of Altair BASIC worth less than $2 an hour.

Why is this? As the majority of hobbyists must be aware, most of you steal your software. Hardware must be paid for, but software is something to share. Who cares if the people who worked on it get paid?

Is this fair? One thing you don't do by stealing software is get back at MITS for some problem you may have had. MITS doesn't make money selling software. The royalty paid to us, the manual, the tape and the overhead make it a break-even operation. One thing you do do is prevent good software from being written. Who can afford to do professional work for nothing? What hobbyist can put 3-man years into programming, finding all bugs, documenting his product and distribute for free? The fact is, no one besides us has invested a lot of money in hobby software. We have written 6800 BASIC, and are writing 8080 APL and 6800 APL, but there is very little incentive to make this software available to hobbyists. Most directly, the thing you do is theft.

What about the guys who re-sell Altair BASIC, aren't they making money on hobby software? Yes, but those who have been reported to us may lose in the end. They are the ones who give hobbyists a bad name, and should be kicked out of any club meeting they show up at.

I would appreciate letters from any one who wants to pay up, or has a suggestion or comment. Just write me at 1180 Alvarado SE, #114, Albuquerque, New Mexico, 87108. Nothing would please me more than being able to hire ten programmers and deluge the hobby market with good software.

Bill Gates

Bill Gates
General Partner, Micro-Soft

Richard Stallman

GNU

GNU is Not Unix

GNU C Compiler (GCC)

Linux by Linus

Linux

- Created by Linus Torvalds in 1991

- Unix like OS

- Released under GPL (GNU Public License)

- Linux is an Operation System

- Ubuntu is a free, *Debian* derived Linux-based operating system

Hello everybody out there using minix -

   I'm doing a (free) operating system (just a hobby, won't be big and professional like gnu) for 386(486) AT clones. This has been brewing since april, and is starting to get ready. I'd like any feedback on things people like/dislike in minix, as my OS resembles it somewhat (same physical layout of the file-system (due to practical reasons) among other things).

   I've currently ported bash(1.08) and gcc(1.40), and things seem to work. This implies that I'll get something practical within a few months, and I'd like to know what features most people would want. Any suggestions are welcome, but I won't promise I'll implement them :-)

   Linus (torvalds@kruuna.helsinki.fi)

   PS. Yes – it's free of any minix code, and it has a multi-threaded fs. It is NOT portable (uses 386 task switching etc), and it probably never will support anything other than AT-harddisks, as that's all I have :-(.

<div align="right">– Linus Torvalds [7]</div>

Famous Linux Distributions

- Redhat/Fedora
- Novell Suse
- Slackware
- Mandriva (Mandrake + Connectiva)
- Gentoo
- Debian
- Ubuntu

Ubuntu

- October 20, 2004, as a temporary fork of the Debian project.
- Currently funded by Canonical Ltd
- Canonical founded by Mark Shuttleworth

The End :)

Q&A