

FEATURED ARTIFACTS

# THE GREAT TECH STORY

CHM



Students exploring The Great Tech Story exhibits and immersive experiences will encounter a variety of computing and technology artifacts. The list below provides basic descriptions in the order they are found in the game.

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**Artifact****Description**

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[Abacus](#)

The abacus is a simple but powerful calculating tool that has been used for centuries in Asia and Europe.

[Human Computers](#)

Human computers are people who used to do often complex math with calculators as part of a team. Eventually they were replaced by computing machines.

[Antikythera Mechanism](#)

The Antikythera mechanism is about 2000 years old and is named for the Greek island near where it was discovered by sponge divers in 1901. It took many decades for scholars to figure out how it worked.

[Punched Card](#)

The punched card was used for computer input and output for most of the 20th century. The holes punched in them encode numbers or letters for machines to read. The idea first came from 18th-century French weaving looms.

[Punched Paper Tape](#)

Punched paper tape is a “cousin” to the punched card. It has been used to control different kinds of devices over the centuries, from player pianos, telegraph message systems, and industrial machines, to eventually storing computer programs and data.

[Handheld Calculator](#)

Handheld calculators emerged in the early 1970s, when integrated circuits allowed them to be miniaturized down to pocket-size.

[ENIAC](#)

The Electronic Numerical Integrator and Computer (ENIAC), was completed in late 1945 and was the first large-scale, digital, electronic computer.

[Kitchen Computer](#)

The Kitchen Computer appeared in the 1969 Neiman-Marcus Christmas catalogue as a machine for housewives to store their recipes on. At least that was the idea. At \$10,600—the price of a small home at the time—none were sold.

In collaboration with Microsoft, Minecraft: Education Edition, and ReWrite Media. Initial support provided by KLA Foundation and the Severns Family Foundation.



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**Artifact****Description**

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[IBM System/360](#)

The 1964 IBM System/360 computer was a landmark in computer history. It was a “family” of five computers of varying power, all of which could run the same software, a revolution at the time.

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[Cray-1](#)

Legendary American engineer Seymour Cray designed the fastest computers in the world for over three decades. His Cray-1 supercomputer was the fastest in the world for five years after it came out in 1975.

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[Thumb Drive](#)

The USB thumb drive is a compact, durable form of storage based on “flash” memory, initially perfected by Fujio Masuoka in 1984. The portable USB stick revolutionized personal data storage and transfers.

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[Quipu](#)

The quipu is made out of knotted, colored cords that represent data. Used for centuries in Andean South American villages, quipus were used to store information like tax records and census data.

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[RAMAC](#)

The RAMAC (Random Access Method of Accounting and Control) was the world’s very first hard disk drive. It stored about 3.5 MB of data and set the basic pattern we still use today to build hard drives.

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[Silicon Ingot](#)

Silicon ingots are used to make computer chips. They are “grown” from a single seed crystal dipped in molten silicon that is slowly pulled out. This creates a cylinder of pure silicon that is then sliced into wafers and etched with electronic circuitry.

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[Vacuum Tube Module](#)

The vacuum tube module was an improved method of packaging vacuum tubes together into a unified assembly that could be plugged in or pulled out for easy repair.

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[Relay](#)

The relay is an electrical device that can use a small signal to control a much larger current or device. It was invented in 1809 as part of a telegraph system.

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[Vacuum Tube](#)

The vacuum tube is like a special kind of light bulb that can act as a super-fast electrical switch or as an amplifier. It was invented in 1904 for use in radio, but later found use in computers.

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**Artifact****Description**

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[Transistor](#)

Like the vacuum tube, the transistor can act as a switch or an amplifier, but is much smaller, uses less power, and generates almost no heat. It was invented in 1947 by three scientists at Bell Laboratories in New Jersey and revolutionized electronics and computing.

[Shakey](#)

Shakey is an early robot with cameras, touch sensors, and software that can help it navigate around a room. Some of Shakey's "DNA" can be seen in modern applications, like Google Maps.

[Deep Blue](#)

Deep Blue was a massively parallel IBM supercomputer that was designed to play chess at a world-class level. In 1997, it defeated the reigning world chess champion, Garry Kasparov, in a match that stunned the world.

[Lunar Lander](#)

The Apollo space ship has a lunar lander below the rocket nozzle. The lander took two people down to the moon's surface while a third stayed in orbit in the command and service module.

[Smartphone](#)

A smartphone can make calls, but it's also a general-purpose computer that fits in your pocket or purse, plus a camera, a music player, and much more. Since the 2000s, smartphones have helped people bring the internet with them wherever they go.

[Dynabook](#)

In 1968, a portable computer called the Dynabook was far too futuristic to actually build. But its prototype would inspire both the laptop and the tablet. Many of its imagined features are now common, including wired and wireless networking.

[Server Rack](#)

The connected computers inside server racks "serve up" data you connect to over the internet, whether it's photos or the results of a search. Big datacenters have thousands of servers and make up the Cloud.

[SRI Packet Radio Van](#)

The internet was born in 1977, or at least tested, in the unmarked SRI packet radio van. Full of researchers and equipment, the van drove around sending data halfway around the world. But it was actually built to test out wireless networking (packet radio). Testing the internet was just a side gig.



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**Artifact****Description**

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[Community Memory](#)

Back in the 1970s, people could connect to a vibrant online community through Community Memory terminals in record stores and other public places around Berkeley, California. The project's founders dreamed it would grow as big as today's online world.

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[Web Browser](#)

The first web browser was written by the web's main inventor in 1990. Unlike browsers that came after, it was also an editor—you could write where you wanted and make links yourself. Your "home page" was where you kept notes.

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[Memex](#)

The Memex was an idea for a special desk that would let you "browse" information on rolls of tiny photographs (microfilm), make links between spools, and share them. Back in 1945, when computers were barely invented, it was an amazing idea!

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[Global Network Navigator](#)

The Global Network Navigator (GNN) was a very early web site with shopping, news, travel info, and more. GNN started running advertisements like this in 1993, and they were the first ones on the web!

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[Video Arcade Game](#)

In the 1980s, people played video games in arcades and restaurants everywhere. This example evokes one of the first games to break into popular culture, even becoming the subject of a hit song and TV series.

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[Video Game Prototype](#)

This prototype is for one of the first video games. It was so successful it launched the video game craze and the first successful video game company.

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[Apple-1](#)

In 1976, Steve Wozniak showed off the Apple-1 computer he'd invented to his friends at the Homebrew Computer Club.

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[Apple Macintosh](#)

The Macintosh was considered an innovative personal computer when it launched in 1984. It had a graphical user interface with windows and icons, a paint program, lots of fonts, and it was controlled by a device called a mouse.

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**Artifact****Description**

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[Palm Pilot](#)

The Palm Pilot was the first really popular handheld computer. Its inventor prototyped the concept with a block of wood and a chopstick to write with. The Pilot wasn't a phone but could synchronize with a computer for contacts, to-dos, appointments, and more.

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[Xerox Alto](#)

The Alto computer was developed in the 1970s by engineers trying to create the office of the future. It had many revolutionary features that we use today: windows, networks, email, and the mouse.

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[Self-Driving Car](#)

Self-driving cars try to use artificial intelligence (AI) to replace a human driver. In addition to cameras, they have additional ways to sense and gather data, like radar and LIDAR (radar using light). They know from online maps exactly what's around them and where they're going.

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[Text](#)

Texting (Simple Message Protocol, or SMS) has been built into even the simplest cell phones since the 1990s. People around the world use texting to get lots of things done. Besides messages it can be adapted to help search for information, make payments, or even vote!

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[PDP-1](#)

Developed by Wes Clark in only a few months, the PDP-1 was one of the first widely-used interactive computers. The name stands for "Programmed Data Processor."

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[IBM 1401](#)

The IBM 1401 was one of the most popular early computer systems. Back in 1959, it took a roomful of machines connected together to process data like banking transactions or a company's monthly paychecks.

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[Car Crash Simulation](#)

Car crash simulations help make cars safer by running tests on a computer instead of on the road where people could get hurt.

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[Avatar](#)

An avatar is a character representing a player. This example is from an MMO, or "Massively Multiplayer Online" game. People have fun playing games, but they also make real-life friends and learn how to cooperate and solve problems. Some people who met in online games have even gotten married!