

Bill Gates

Summary of Bill Gates:

Full name: William Henry Gates III

Born: October 28, 1955 (age 70) Seattle, Washington, U.S.

Education: Harvard University (dropped out)

Occupations:Businessman, philanthropist,computer programmer and writer

Years active: 1972–present

He is known for Pioneer of the personal computer revolution with Paul Allen and co-founding of Microsoft and Gates Foundation.

Spouse: Melinda French (married her 1994; divorced 2021)

Children: 3

Parents: Bill Gates Sr. and Mary Maxwell

More information about Bill Gates:

William Henry Gates III (born October 28, 1955) is an American businessman and philanthropist. A pioneer of the microcomputer revolution of the 1970s and 1980s, he co-founded the software company Microsoft in 1975 with his childhood friend Paul Allen. Following Microsoft's 1986 initial public offering, Gates became the world's then-youngest billionaire in 1987, at age 31. Forbes magazine ranked him as the world's wealthiest person for 18 out of 24 years between 1995 and 2017, including 13 years consecutively from 1995 to 2007. Gates became the first centibillionaire in 1999, when his net worth briefly surpassed US\$100 billion. According to Forbes, as of May 2025, his net worth stood at US\$115.1 billion, making him the thirteenth-richest individual in the world.[1][2][3]

Born and raised in Seattle, Washington, Gates was privately educated at Lakeside School, where he befriended Allen and developed his computing interests. In 1973, he enrolled at Harvard University, where he took classes including Math 55 and graduate level computer science courses, but he dropped out in 1975 to co-found and lead Microsoft. He served as its CEO for the next 25 years and also became president and chairman of the board when the company incorporated in 1981. Succeeded as CEO by Steve Ballmer in 2000, he transitioned to chief software architect, a position he held until 2008. He stepped down as chairman of the board in 2014 and became technology adviser to CEO Satya Nadella and other Microsoft leaders, a position he still holds. He resigned from the board in 2020.

Over time, Gates reduced his role at Microsoft to focus on his philanthropic work with the Bill & Melinda Gates Foundation, the world's largest private charitable organization, which he and his then-wife Melinda French Gates co-chaired from 2000 until 2024. Focusing on areas including health, education, and poverty alleviation, Gates became known for his efforts to combat transmissible diseases such as tuberculosis, malaria, and polio. After French Gates resigned as co-chair following the couple's divorce, the foundation was renamed the Gates Foundation, with Gates as its sole chair.

Gates is founder and chairman of several other companies, including BEN, Cascade Investment, TerraPower, Gates Ventures, and Breakthrough Energy. In 2010, he and Warren Buffett founded the Giving Pledge, whereby they and other billionaires pledge to give at least half their wealth to philanthropy. Named as one of the 100 most influential people of the 20th century by Time magazine in 1999, he has received numerous other honors and accolades, including a Presidential Medal of Freedom, awarded jointly to him and French Gates in 2016 for their philanthropic work. The subject of several documentary films, he published the first of three planned memoirs, *Source Code: My Beginnings*, in 2025.

Early life and education

William Henry Gates III was born on October 28, 1955, in Seattle, Washington,[4] as the only son of William H. Gates Sr.[a] (1925–2020) and his first wife, Mary Maxwell Gates (1929–1994).[5] His ancestry includes English, German, and Irish/Scots-Irish.[6] His father was a prominent lawyer, and his mother served on the board of directors of First Interstate BancSystem and United Way of America. Gates's maternal grandfather J. W. Maxwell was a national bank president. Gates also has an older sister Kristi (Kristianne) and a younger sister Libby. He is the fourth of his name in his family but is known as William Gates III or "Trey" (i.e., three) because his father had the "II" suffix.[7][8] The family lived in the Sand Point area of Seattle in a home that was damaged by a rare tornado when Gates was 7.[9]

When Gates was young his parents wanted him to pursue a career in law.[10] During his childhood, his family regularly attended a church of the Congregational Christian Churches, a Protestant Reformed denomination.[11][12][13]

Gates was small for his age and was bullied as a child.[8] The family encouraged competition; one visitor reported that "it didn't matter whether it was hearts or pickleball or swimming to the dock; there was always a reward for winning and there was always a penalty for losing".[14]

Gates (right) with Paul Allen seated at Teletype Model 33 ASR terminals in Lakeside School, 1970

At age 13, Gates enrolled in the private Lakeside Prep School.[15][16] When he was in the eighth grade, the Mothers' Club at the school used proceeds from Lakeside School's

rummage sale to buy a Teletype Model 33 ASR terminal and a block of computer time on a General Electric (GE) computer for the students.[17] Gates took an interest in programming the GE system in BASIC, and he was excused from math classes to pursue his interest. He wrote his first computer program on this machine, an implementation of tic-tac-toe that allowed users to play games against the computer. Gates was fascinated by the machine and how it would always execute software code perfectly.[18] After the Mothers Club donation was exhausted, Gates and other students sought time on systems including DEC PDP minicomputers. One of these systems was a PDP-10 belonging to Computer Center Corporation (CCC) which banned Gates, Paul Allen, Ric Weiland, and Gates's best friend and first business partner Kent Evans for the summer after it caught them exploiting bugs in the operating system to obtain free computer time.[19][8]

The four students formed the Lakeside Programmers Club to make money.[8] At the end of the ban, they offered to find bugs in CCC's software in exchange for extra computer time. Rather than using the system remotely via Teletype, Gates went to CCC's offices and studied source code for various programs that ran on the system, including Fortran, Lisp, and machine language. The arrangement with CCC continued until 1970 when the company went out of business. The following year, a Lakeside teacher enlisted Gates and Evans to automate the school's class-scheduling system, providing them computer time and royalties in return. The duo worked diligently in order to have the program ready for their senior year. Towards the end of their junior year, Evans was killed in a mountain climbing accident, which Gates described as one of the saddest days of his life. He then turned to Allen who helped him finish the system for Lakeside.[8]

At age 17, Gates formed a venture with Allen called Traf-O-Data to make traffic counters based on the Intel 8008 processor.[20] In 1972, he served as a congressional page in the House of Representatives.[21][22] He was a national merit scholar when he graduated from Lakeside School in 1973.[23] He scored 1590 out of 1600 on the Scholastic Aptitude Tests (SAT) and enrolled at Harvard University in the autumn of 1973.[24][25]

Gates did not stay at Harvard long enough to choose a concentration, but took mathematics (including Math 55) and graduate level computer science courses.[26] While at Harvard, he met fellow student and future Microsoft CEO Steve Ballmer. Gates left Harvard after two years while Ballmer stayed and graduated magna cum laude. Years later, Ballmer succeeded Gates as Microsoft's CEO and maintained that position from 2000 until his resignation in 2014.[27][28]

Gates devised an algorithm for pancake sorting as a solution to one of a series of unsolved problems[29] presented in a combinatorics class by professor Harry Lewis. His solution held the record as the fastest version for over 30 years, and its successor is faster by only 2%.[30] His solution was formalized and published in collaboration with Harvard computer scientist Christos Papadimitriou.[31]

Gates remained in contact with Paul Allen and joined him at Honeywell during the summer of 1974.[32] In 1975, the MITS Altair 8800 was released based on the Intel 8080 CPU, and Gates and Allen saw the opportunity to start their own computer software company.[33] Gates dropped out of Harvard that same year. His parents were supportive of him after seeing how much he wanted to start his own company.[34] He explained his decision to leave Harvard: "if things hadn't worked out, I could always go back to school. I was officially on leave." [35]

Microsoft

Further information: History of Microsoft and Microsoft § History

BASIC

MITS Altair 8800 Computer with 8-inch (200 mm) floppy disk system whose first programming language was Microsoft's founding product, Altair BASIC

Gates read the January 1975 issue of Popular Electronics which demonstrated the Altair 8800, and contacted Micro Instrumentation and Telemetry Systems (MITS) to inform them that he and others were working on a BASIC interpreter for the platform.[36] In reality, Gates and Allen did not have an Altair and had not written code for it; they merely wanted to gauge MITS's interest. MITS president Ed Roberts agreed to meet them for a demonstration, and over the course of a few weeks they developed an Altair emulator that ran on a minicomputer, and then the BASIC interpreter. The demonstration was held at MITS's offices in Albuquerque, New Mexico; it was a success and resulted in a deal with MITS to distribute the interpreter as Altair BASIC. MITS hired Allen,[37] and Gates took a leave of absence from Harvard to work with him at MITS in November 1975. Allen named their partnership "Micro-Soft", a combination of "microcomputer" and "software", and their first office was in Albuquerque. The first employee Gates and Allen hired was their high school collaborator Ric Weiland.[37] They dropped the hyphen within a year and officially registered the trade name "Microsoft" with the Secretary of the State of New Mexico on November 26, 1976.[37] Gates never returned to Harvard to complete his studies.

Microsoft's Altair BASIC was popular with computer hobbyists, but Gates discovered that a pre-market copy had leaked out and was being widely copied and distributed. In February 1976, he wrote An Open Letter to Hobbyists in the MITS newsletter in which he asserted that more than 90% of the users of Microsoft Altair BASIC had not paid Microsoft for it and the Altair "hobby market" was in danger of eliminating the incentive for any professional developers to produce, distribute, and maintain high-quality software.[38] This letter was unpopular with many computer hobbyists, but Gates persisted in his belief that software developers should be able to demand payment. Microsoft became independent of MITS in late 1976, and it continued to develop

programming language software for various systems.[37] The company moved from Albuquerque to Bellevue, Washington on January 1, 1979.[36]

Gates said he personally reviewed and often rewrote every line of code that the company produced in its first five years. As the company grew, he transitioned into a manager role, then an executive.[39]

IBM partnership

IBM, the leading supplier of computer equipment to commercial enterprises at the time, approached Microsoft in July 1980 concerning software for its upcoming personal computer, the IBM PC,[40] after Gates's mother mentioned Microsoft to John Opel, IBM's then CEO.[5] IBM first proposed that Microsoft write the BASIC interpreter. IBM's representatives also mentioned that they needed an operating system, and Gates referred them to Digital Research (DRI), makers of the widely used CP/M operating system.[41] IBM's discussions with Digital Research went poorly and they did not reach a licensing agreement. IBM representative Jack Sams mentioned the licensing difficulties during a subsequent meeting with Gates and asked if Microsoft could provide an operating system. A few weeks later, Gates and Allen proposed using 86-DOS, an operating system similar to CP/M, that Tim Paterson of Seattle Computer Products (SCP) had made for hardware similar to the PC.[42] Microsoft made a deal with SCP to be the exclusive licensing agent of 86-DOS, and later the full owner. Microsoft employed Paterson to adapt the operating system for the PC[43] and delivered it to IBM as PC DOS for a one-time fee of \$50,000.[44]

The contract itself only earned Microsoft a relatively small fee. It was the prestige brought to Microsoft by IBM's adoption of their operating system that would be the origin of Microsoft's transformation from a small business to the leading software company in the world. Gates had not offered to transfer the copyright on the operating system to IBM because he believed that other personal computer makers would clone IBM's PC hardware.[44] They did, making the IBM-compatible PC, running DOS, a de facto standard. The sales of MS-DOS (the version of DOS sold to customers other than IBM) made Microsoft a major player in the industry.[45] The press quickly identified Microsoft as being very influential on the IBM PC. PC Magazine asked if Gates was "the man behind the machine?".[40]

Gates oversaw Microsoft's company restructuring on June 25, 1981, which re-incorporated the company in Washington state and made Gates the president and chairman of the board, with Paul Allen as vice president and vice chairman. In early 1983, Allen left the company after receiving a Hodgkin lymphoma diagnosis, effectively ending the formal business partnership between Gates and Allen, which had been strained months prior due to a contentious dispute over Microsoft equity.[36][46] Later in the decade, Gates repaired his relationship with Allen and together the two donated millions

to their childhood school Lakeside.[8] They remained friends until Allen's death in October 2018.[47]

Windows

Microsoft and Gates launched their first retail version of Microsoft Windows on November 20, 1985, in an attempt to fend off competition from Apple's Macintosh GUI, which had captivated consumers with its simplicity and ease of use.[48] In August 1986, the company struck a deal with IBM to develop a separate operating system called OS/2. Although the two companies successfully developed the first version of the new system, the partnership deteriorated due to mounting creative differences.[49] The operating system grew out of DOS in an organic fashion over a decade until Windows 95, which hid the DOS prompt by default. Windows XP was released one year after Gates stepped down as Microsoft CEO.[50] Windows 8.1 was the last version of the OS released before Gates left the chair of the firm to John W. Thompson on February 5, 2014.[51]

Management style

Gates delivers a speech at the World Economic Forum in Switzerland, January 2008.

During Microsoft's early years, Gates was an active software developer, particularly in the company's programming language products, but his primary role in most of the company's history was as a manager and executive. He has not officially been on a development team since working on the TRS-80 Model 100,[52] but he wrote code that shipped with the company's products as late as 1989.[53] Jerry Pournelle wrote in 1985 when Gates announced Microsoft Excel: "Bill Gates likes the program, not because it's going to make him a lot of money (although I'm sure it will do that), but because it's a neat hack." [54] During the late 1990s, he was criticized for his business tactics, which were considered anti-competitive. This opinion has been upheld by numerous court rulings.[55]

In June 2006, Gates announced that he would transition out of his role at Microsoft to dedicate more time to philanthropy. He gradually divided his responsibilities between two successors when he placed Ray Ozzie in charge of management and Craig Mundie in charge of long-term product strategy.[56] The process took two years to fully transfer his duties to Ozzie and Mundie, and was completed on June 27, 2008.[57]

Post-Microsoft

Since leaving day-to-day operations at Microsoft, Gates has continued his philanthropy and works on other projects. He stepped down as chairman of Microsoft in February 2014 to become technology advisor at the firm to support newly appointed CEO Satya Nadella.[58][59]

Gates provided his perspective on a range of issues in an interview that was published in the March 2014 issue of Rolling Stone magazine. In the interview, he provided his

perspective on climate change, his charitable activities, various tech companies and people involved in them, and the state of America. In response to a question about his greatest fear when he looks 50 years into the future, Gates stated: "there'll be some really bad things that'll happen in the next 50 or 100 years, but hopefully none of them on the scale of, say, a million people that you didn't expect to die from a pandemic, or nuclear or bioterrorism." Gates also identified innovation as the "real driver of progress" and pronounced that "America's way better today than it's ever been." [60] Gates has often expressed concern about the potential harms of superintelligence; in a Reddit "ask me anything", he stated that:

First the machines will do a lot of jobs for us and not be super intelligent. That should be positive if we manage it well. A few decades after that though the intelligence is strong enough to be a concern. I agree with Elon Musk and some others on this and don't understand why some people are not concerned. [61][62][63][64]

In an interview that was held at the TED conference in March 2015, with Baidu co-founder and CEO, Robin Li, Gates said he would "highly recommend" Nick Bostrom's recent work, *Superintelligence: Paths, Dangers, Strategies*. [65] During the conference, Gates warned that the world was not prepared for the next pandemic, a situation that would come to pass in late 2019 when the COVID-19 pandemic began. [66] In March 2018, Gates met at his home in Seattle with Mohammed bin Salman, the crown prince and de facto ruler of Saudi Arabia to discuss investment opportunities for Saudi Vision 2030. [67][68] In June 2019, Gates admitted that losing the mobile operating system race to Android was his biggest mistake. He stated that it was within their skill set of being the dominant player, but partially blames the antitrust litigation during the time. [69] That same year, Gates became an advisory board member of the Bloomberg New Economy Forum. [70]

Gates and UK Foreign Secretary David Cameron at COP28 in Dubai on December 1, 2023

In March 2020, Microsoft announced Gates would be leaving his board positions at Berkshire Hathaway and Microsoft to dedicate himself to philanthropic endeavors such as climate change, global health and development, and education. [71] The Wall Street Journal reported in May 2021 that Gates stepped down before Microsoft's board finished its investigation into Gates's alleged inappropriate sexual relationship with a Microsoft employee, which an external law firm had begun probing in late 2019. [72]

During the COVID-19 pandemic, Gates has widely been looked at by media outlets as an expert on the issue, despite him not being a public official or having any prior medical training. [73] His foundation did, however, establish the COVID-19 Therapeutics Accelerator in 2020 to hasten the development and evaluation of new and repurposed drugs and biologics to treat patients for COVID-19, [74] and, as of February 2021, Gates expressed that he and Anthony Fauci frequently talk and collaborate on matters including vaccines and other medical innovations to fight the pandemic. [75]

Business ventures and investments (partial list)

Gates has a multi-billion dollar investment portfolio with stakes in companies in multiple sectors and has participated in several entrepreneurial ventures beyond Microsoft, including:

AutoNation, an automotive retailer which trades on the NYSE and in which Gates has a 16% stake.[76]

bgC3 LLC, a think-tank and research company founded by Gates.[77]

Canadian National Railway (CN), a Canadian Class I freight railway. As of 2019, Gates is the single largest shareholder of the company.[78]

Cascade Investment LLC, a private investment and holding company incorporated in the United States, founded and controlled by Gates and headquartered in Kirkland, Washington.[79]

Gates is the largest private owner of farmland in the United States with his landholdings owned through Cascade Investment totalling 242,000 acres across 19 states.[80][81] He is the 49th largest private owner of land in the US.[82]

Carbon Engineering, a for-profit venture founded by David Keith, which Gates helped fund.[83][84][85] It is also supported by Chevron Corporation and Occidental Petroleum.[86]

SCoPEX, Keith's academic venture in "sun-dimming" geoengineering, which Gates provided most of the \$12 million for.[87]

Corbis (originally named Interactive Home Systems, then Corbis and now known as Branded Entertainment Network), a digital image licensing and rights services company founded and chaired by Gates. Corbis Images, its enormous photo image library, was sold to a Chinese firm in January 2016.[88]

EarthNow, a Seattle-based startup company aiming to blanket the Earth with live satellite video coverage. Gates is a large financial backer.[89]

Eclipse Aviation, a defunct manufacturer of very light jets. Gates was a major stakeholder early on in the project.[90]

Impossible Foods, a company that develops plant-based substitutes for meat products. Some of the \$396 million Patrick O. Brown collected for his business came from Gates around 2014 to 2017.[91][92][93]

Ecolab, a global provider of water, hygiene and energy technologies and services to the food, energy, healthcare, industrial and hospitality markets. Combined with the shares owned by the Foundation, Gates owns 11.6% of the company. A shareholder agreement

in 2012 allowed him to own up to 25% of the company, but this agreement was removed.[94]

ResearchGate, a social networking site for scientists. Gates participated in a \$35 million round of financing along with other investors.[95]

TerraPower, a nuclear reactor design company co-founded and chaired by Gates, which is developing next generation traveling-wave reactor nuclear power plants in an effort to tackle climate change.[96][97][98][99][100]

Breakthrough Energy Ventures, a closed fund for wealthy individuals who seek ROI on a 20-year horizon (see next section), which "is funding green start-ups and a host of other low-carbon entrepreneurial projects, including everything from advanced nuclear technology to synthetic breast milk". It was founded by Gates in 2015.[101]

Ginkgo Bioworks, a biotech startup that received \$350 million in venture funding in 2019, in part from Gates's investment firm Cascade Investment.[102]

Luminous Computing, a company that develops neuromorphic photonic integrated circuits for AI acceleration.

Mologic, a British diagnostic technology company that Gates purchased, along with the Soros Economic Development Fund, "which has developed 10-minute Covid lateral flow tests that it aims to make for as little as \$1".[103]

Climate change and energy

With Indian Prime Minister Narendra Modi at the COP26 climate summit in Glasgow in November 2021

Gates considers climate change and global access to energy to be critical, interrelated issues. He has urged governments and the private sector to invest in research and development to make clean, reliable energy cheaper. Gates envisions that a breakthrough innovation in sustainable energy technology could drive down both greenhouse gas emissions and poverty, and bring economic benefits by stabilizing energy prices.[104] In 2011, he said: "If you gave me the choice between picking the next 10 presidents or ensuring that energy is environmentally friendly and a quarter as costly, I'd pick the energy thing."[105]

In 2015, he wrote about the challenge of transitioning the world's energy system from one based primarily on fossil fuels to one based on sustainable energy sources. Global energy transitions have historically taken decades. He wrote, "I believe we can make this transition faster, both because the pace of innovation is accelerating, and because we have never had such an urgent reason to move from one source of energy to another."[106] This rapid transition, according to Gates, would depend on increased government funding for basic research and financially risky private-sector investment, to

enable innovation in diverse areas such as nuclear energy, grid energy storage to facilitate greater use of solar and wind energy, and solar fuels.[107]

The European Commission, European Investment Bank and Gates' Breakthrough Energy Catalyst agreed at the 2021 UN Climate Change conference to work together to bring green technologies to market.

Gates spearheaded two initiatives that he announced at the 2015 United Nations Climate Change Conference in Paris. One was Mission Innovation, in which 20 national governments pledged to double their spending on research and development for carbon-free energy in over five years' time.[104] Another initiative was Breakthrough Energy, a group of investors who agreed to fund high-risk startups in clean energy technologies. Gates, who had already invested \$1 billion of his own money in innovative energy startups, committed a further \$1 billion to Breakthrough Energy.[107] In December 2020, he called for the U.S. federal government to create institutes for clean energy research, analogous to the National Institutes of Health.[108] Gates has also urged rich nations to shift to 100% synthetic beef industries to reduce greenhouse gas emissions from food production.[109]

Gates has been criticized for holding a large stake in Signature Aviation, a company that services emissions-intensive private jets.[110] In 2019, he began to divest from fossil fuels. He does not expect divestment itself to have much practical impact, but says that if his efforts to provide alternatives were to fail, he would not want to personally benefit from an increase in fossil fuel stock prices.[111] After he published his book *How to Avoid a Climate Disaster*, parts of the climate activist community criticized Gates's approach as technological solutionism.[112] In 2022, educational streamer Wondrium produced the series "Solving for Zero: The Search for Climate Innovation" inspired by the book.[113]

In June 2021, Gates's company TerraPower and Warren Buffett's PacifiCorp announced the first sodium nuclear reactor in Wyoming. Wyoming Governor Mike Gordon hailed the project as a step toward carbon-negative nuclear power. Wyoming Senator John Barrasso also said that it could boost the state's once-active uranium mining industry.[114]

Gates supported the passage of the Inflation Reduction Act of 2022. He tried to convince Joe Manchin to support a climate bill starting in 2019, and especially in the months leading up to the adoption of the bill. The bill aimed to cut the global greenhouse gas emissions in a level similar to "eliminating the annual planet-warming pollution of France and Germany combined" and may help to limit the warming of the planet to 1.5 degrees – the target of the Paris Agreement.[115] He thanked both Joe Manchin and Chuck Schumer for their efforts in a guest essay in *The New York Times*, where he said "Inflation Reduction Act of 2022 may be the single most important piece of climate legislation in American history" given its potential to spur development of new technologies.[116] Gates gave further insights on climate change in his commencement

address at Northern Arizona University on May 6, 2023, where he was bestowed an honorary doctorate.[117]