

# PART 1



# ICT Essential Starters

If your are new to computers, starting to use it can feel like visiting to a foreign country – things look familiar but you can't speak the language. Getting to grips with computers is much easier than learning a new language.

This part will kick start you to computer history, concepts and learning the operating system that most people are using.

# PART 1 ICT ESSENTIALS

# SCORE SHEETS

Name: \_\_\_\_\_

Teacher: \_\_\_\_\_

Grade and Section: \_\_\_\_\_

LIST OF CHAPTER TEST	
CHAPTER TEST	SCORE
CHAPTER 1 DISCOVER COMPUTER	
CHAPTER 2 ICT FUNDAMENTALS	
CHAPTER 3 ICT and SOCIETY	
CHAPTER 4 EXPLORE APPLICATION SOFTWARE	
CHAPTER 5 LEARNING MICROSOFT WINDOWS	
CHAPTER 6 WORKING WITH FILES AND FOLDERS	

TEAR AND SUBMIT IT TO YOUR TEACHER FOR RECORDING.



# Chapter 1

## Word Watch

- |              |           |            |             |
|--------------|-----------|------------|-------------|
| ▪ Podcasting | ▪ Java    | ▪ Pentium  | ▪ Wikipedia |
| ▪ Blogging   | ▪ LAN     | ▪ Ethernet | ▪ IBM       |
| ▪ Amazon     | ▪ LSI     | ▪ PDA      | ▪ Intel     |
| ▪ .Net       | ▪ Web 2.0 | ▪ Google   | ▪ Cobol     |
| ▪ VoIP       | ▪ Wifi    | ▪ Yahoo    | ▪ Microsoft |



# Discover Computer

## Learning Objectives

After completing this chapter, you should be able to:

- identify the milestone of computer history and its related inventions.

# Timeline in Computer History

"Who invented the computer?" is not a question with a simple answer. The real answer is that many inventors contributed to the history of computers and that a computer is a complex piece of machinery made up of many parts, each of which can be considered a separate invention.

This chapter covers many of the major milestones in computer history with a concentration on the history of personal computers and its related inventions.



Atanasoff



Berry

**1937**

Dr. John V. Atanasoff and Clifford Berry design and build the first electronic digital computer. Their machine, the Atanasoff-Berry-Computer, or ABC, provides the foundation for advances in electronic digital computers.

**1939**

Hewlett-Packard is Founded. David Packard and Bill Hewlett found Hewlett-Packard in a Palo Alto, California garage. Their first product was the HP 200A Audio Oscillator, which rapidly becomes a popular piece of test equipment for engineers. Walt Disney Pictures ordered eight of the 200B model to use as sound effects generators for the 1940 movie "Fantasia."



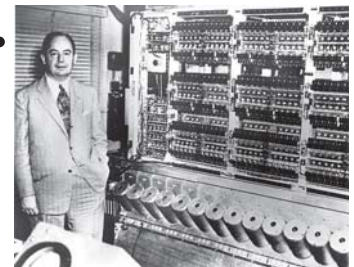
**1940**



The Complex Number Calculator (CNC) is completed. In 1939, Bell Telephone Laboratories completed this calculator, designed by researcher George Stibitz. In 1940, Stibitz demonstrated the CNC at an American Mathematical Society conference held at Dartmouth College. Stibitz stunned the group by performing calculations remotely on the CNC (located in New York City) using a Teletype connected via special telephone lines. This is considered to be the first demonstration of remote access computing.

**1943**

During World War II, British scientist Alan Turing designs the Colossus, an electronic computer created for the military to break German codes. The computer's existence is kept secret until the 1970s.



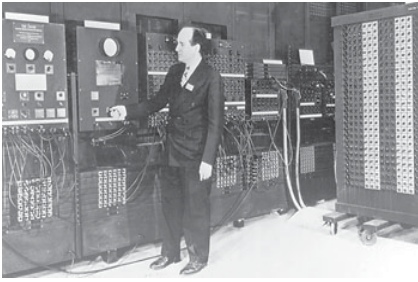
**1945**

John von Neumann poses in front of the electronic computer built at the Institute for Advanced Study. This computer and its von Neumann architecture served as the prototype for subsequent stored program computers worldwide.





## 1946



Dr. John W. Mauchly and J. Presper Eckert, Jr. complete work on the first large-scale electronic, general-purpose digital computer. The ENIAC (Electronic Numerical Integrator And Computer) weighs 30 tons, contains 18,000 vacuum tubes, occupies a 30 x 50 foot space, and consumes 160 kilowatts of power.

## 1947

William Shockley, John Bardeen, and Walter Brattain invent the transfer resistance device, eventually called the transistor. The transistor would revolutionize computers, proving much more reliable than vacuum tubes.



## 1950



Engineering Research Associates of Minneapolis built the ERA 1101, the first commercially produced computer; the company's first customer was the U.S. Navy. It held 1 million bits on its magnetic drum, the earliest magnetic storage devices. Drums registered information as magnetic pulses in tracks around a metal cylinder. Read/write heads both recorded and recovered the data. Drums eventually stored as many as 4,000 words and retrieved any one of them in as little as five-thousandths of a second.

## 1951

The first commercially available electronic digital computer, the UNIVAC I (UNIVERSal Automatic Computer), is introduced by Remington Rand. Public awareness of computers increases when the UNIVAC correctly predicts that Dwight D. Eisenhower will win the presidential election.



## 1952



Dr. Grace Hopper considers the concept of reusable software in her paper, "The Education of a Computer." The paper describes how to program a computer with symbolic notation instead of detailed machine language.

## 1953

Core memory, developed in the early 1950s, provides much larger storage capacity than vacuum tube memory.

The IBM model 650 is one of the first widely used computers. The computer is so successful that IBM manufactures more than 1,000. IBM will dominate the mainframe market for the next decade.





## 1956

MIT researchers built the TX-0, the first general-purpose, programmable computer built with transistors. For easy replacement, designers placed each transistor circuit inside a "bottle," similar to a vacuum tube. Constructed at MIT's Lincoln Laboratory, the TX-0 moved to the MIT Research Laboratory of Electronics, where it hosted some early imaginative tests of programming, including a Western movie shown on TV, 3-D tic-tac-toe, and a maze in which mouse found martinis and became increasingly inebriated.

## 1957

The IBM 305 RAMAC computer is the first to use magnetic disk for external storage. The computer provides storage capacity similar to magnetic tape that previously was used but offers the advantage of semi-random access capability.

FORTRAN (FORMula TRANslation), an efficient, easy-to-use programming language, is introduced by John Backus.



## 1958

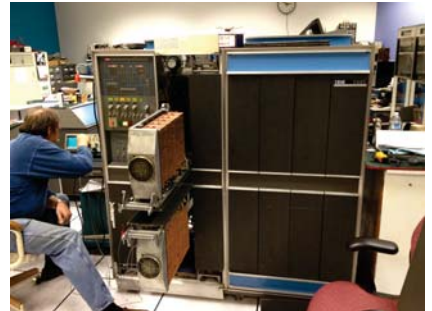


Jack Kilby of Texas Instruments invents the integrated circuit, which lays the foundation for high-speed computers and large-capacity memory. Computers built with transistors mark the beginning of the second generation of computer hardware.

## 1959

More than 200 programming languages have been created.

IBM introduces two smaller, desk-sized computers: the IBM 1401 for business and the IBM 1620 for scientists.



## 1960



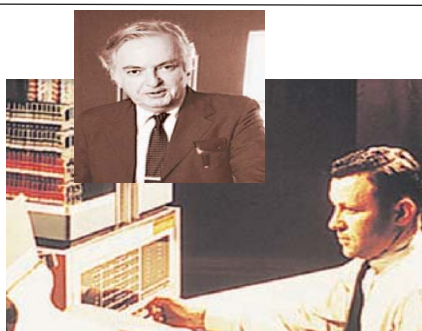
COBOL, a high-level business application language, is developed by a committee headed by Dr. Grace Hopper.

## 1964

The number of computers has grown to 18,000. Third-generation computers, with their controlling circuitry stored on chips, are introduced. The IBM System/360 computer is the first family of compatible machines, merging science and business lines.

IBM introduces the term word processing for the first time with its Magnetic Tape/Selectric Typewriter (MT/ST). The MT/ST was the first reusable storage medium that allowed typed material to be edited without having to retype the document.





## 1965

Dr. John Kemeny of Dartmouth leads the development of the BASIC programming language.

Digital Equipment Corporation (DEC) introduces the first minicomputer, the PDP-8. The machine is used extensively as an interface for time sharing systems.

## 1968

In a letter to the editor titled, "GO TO Statements Considered Harmful," Dr. Edsger Dijkstra introduces the concept of structured programming, developing standards for constructing computer programs.

Computer Science Corporation (CSC) becomes the first software company listed on the New York Stock Exchange.

Alan Shugart at IBM demonstrates the first regular use of an 8-inch floppy disk.



**IBM**

**ARPANET**

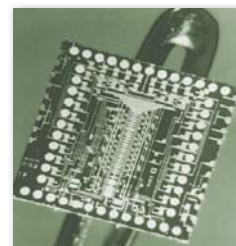
## 1969

Under pressure from the industry, IBM announces that some of its software will be priced separately from the computer hardware, allowing software firms to emerge in the industry.

The ARPANET network is established, which eventually grows to become the Internet.

## 1970

Fourth-generation computers, built with chips that use LSI (large-scale integration) arrive. While the chips used in 1965 contained up to 1,000 circuits, the LSI chip contains as many as 15,000.



## 1971



Dr. Ted Hoff of Intel Corporation develops a microprocessor, or microprogrammable computer chip, the Intel 4004.

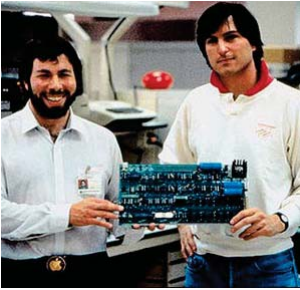
## 1975

MITS, Inc. advertises one of the first microcomputers, the Altair. The Altair is sold in kits for less than \$400 and within the first three months 4,000 orders are taken.

Ethernet, the first local area network (LAN), is developed at Xerox PARC (Palo Alto Research Center) by Robert Metcalf.







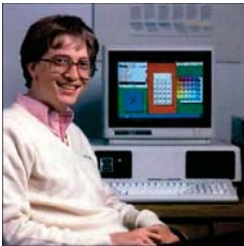
## 1976

Steve Jobs and Steve Wozniak build the first Apple computer. A subsequent version, the Apple II, is an immediate success. Adopted by elementary schools, high schools, and colleges, for many students, the Apple II is their first contact with the world of computers.

## 1979

The first public online information services, CompuServe and the Source, are founded.

VisiCalc, a spreadsheet program written by Bob Frankston and Dan Bricklin, is introduced.



## 1980

IBM offers Microsoft Corporation cofounder, Bill Gates, the opportunity to develop the operating system for the soon to be announced IBM personal computer. With the development of MS-DOS, Microsoft achieves tremendous growth and success.

Alan Shugart presents the Winchester hard disk, revolutionizing storage for personal computers.



## 1981

The IBM PC is introduced, signaling IBM's entrance into the personal computer marketplace. The IBM PC quickly garners the largest share of the personal computer market and becomes the personal computer of choice in business.

The first computer virus, Elk Cloner, is spread via Apple II floppy disks, which contained the operating system. A short rhyme would appear on the screen when the user pressed Reset after the 50th boot of an infected disk.



## 1982

3,275,000 personal computers are sold, almost 3,000,000 more than in 1981.

Compaq, Inc. is founded to develop and market IBM-compatible PCs.

Hayes introduces the 300 bps smart modem. The modem is an immediate success.







## 1983

Instead of choosing a person for its annual award, TIME magazine names the computer Machine of the Year for 1982, acknowledging the impact of computers on society.

Lotus Development Corporation is founded. Its spreadsheet software, Lotus 1-2-3, which combines spreadsheet, graphics, and database programs in one package, becomes the best-selling program for IBM personal computers.

Apple introduces the Macintosh computer, which incorporates a unique, easy-to-learn, graphical user interface.

Hewlett-Packard announces the first LaserJet printer for personal computers.



## 1984

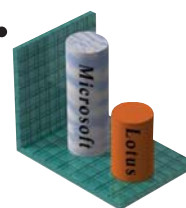


## 1986

Microsoft has public stock offering and raises approximately \$61 million.

Microsoft surpasses Lotus Development Corporation to become the world's top software vendor.

## 1988



## 1989

Nintendo introduces the Game Boy, its first handheld game console.

While working at CERN, Switzerland, Tim Berners-Lee invents the World Wide Web.

The Intel 486 becomes the world's first 1,000,000 transistor microprocessor. It executes 15,000,000 instructions per second four times as fast as its predecessor, the 80386 chip.

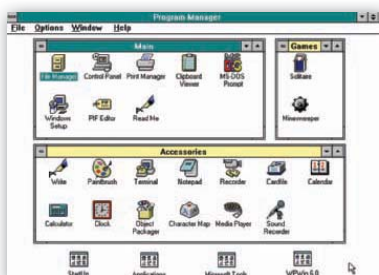


Kodak announces the first digital SLR (single-lens reflex) camera. The Kodak DCS 100 is developed mostly for photojournalism purposes and stores the photos and batteries in a separate unit.

World Wide Web Consortium releases standards that describe a framework for linking documents on different computers.



## 1991



## 1992

Microsoft releases Windows 3.1, the latest version of its Windows operating system. Windows 3.1 offers improvements such as TrueType fonts, multimedia capability, and object linking and embedding (OLE). In two months, 3,000,000 copies of Windows 3.1 are sold.



## 1993

Several companies introduce computers using the Pentium processor from Intel. The Pentium chip contains 3.1 million transistors and is capable of performing 112,000,000 instructions per second.

The U.S. Air Force completes the Global Positioning System by launching its 24th Navstar satellite into orbit. Today, GPS receivers can be found in cars, notebook computers, and smart phones.

Microsoft releases Microsoft Office 3 Professional, the first version of Microsoft Office for the Windows operating system.

The White House launches its Web site, which includes an interactive citizens' handbook and White House history and tours.

## 1994

Linus Torvalds creates the Linux kernel, a UNIX-like operating system that he releases free across the Internet for further enhancement by other programmers.

Apple introduces the first digital camera intended for consumers. The Apple QuickTake 100 is connected to home computers using a serial cable.

Yahoo!, a popular search engine and portal, is founded by two Stanford Ph.D. students as a way to keep track of their personal interests on the Internet. Currently, Yahoo! has approximately 12,000 employees and more than 500 million unique visitors to its Web site.

Amazon is founded and later begins business as an online bookstore. Amazon eventually expands to sell products of all types and facilitates the buying and selling of new and used goods. Today, Amazon has approximately 17,000 employees.



## 1995

Sun Microsystems launches Java, an object oriented programming language that allows users to write one program for a variety of computer platforms.

Microsoft releases Windows 95, a major upgrade to its Windows operating system. Windows 95 consists of more than 10,000,000 lines of computer instructions developed by 300 person years of effort.

eBay, an online auction Web site, is founded. Providing an online venue for people to buy and sell goods, it quickly becomes the world's largest online marketplace as it approaches 100 million active users worldwide.



## 1996



U.S. Robotics introduces the PalmPilot, an inexpensive userfriendly personal digital assistant (PDA).

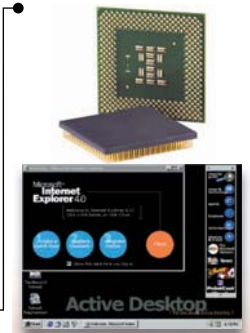
Microsoft releases Windows NT 4.0, an operating system for client-server networks.



## 1997

Intel introduces the Pentium II processor with 7.5 million transistors. The new processor, which incorporates MMX technology, processes video, audio, and graphics data more efficiently and supports programs such as movie editing, gaming, and more.

Microsoft releases Internet Explorer 4.0 and seizes a key place in the Internet arena.



## 1998



Google files for incorporation and is now the most used search engine, capturing more than 60 percent of the market over other search engines.

Apple Computer introduces the iMac, the next version of its popular Macintosh computer. The iMac wins customers with its futuristic design, see-through case, and easy setup.

E-commerce booms. Companies such as Amazon.com, Dell, and E\*TRADE spur online shopping, allowing buyers to obtain a variety of goods and services.

Microsoft ships Windows 98, an upgrade to Windows 95. Windows 98 offers improved Internet access, better system performance, and support for a new generation of hardware and software.



## 1999

Microsoft introduces Office 2000, its premier productivity suite, offering new tools for users to create content and save it directly to a Web site without any file conversion or special steps.

Open source software, such as the Linux operating system and the Apache Web server created by unpaid volunteers, begin to gain wide acceptance among computer users.

Intel introduces the Pentium III processor. This processor succeeds the Pentium II and can process 3-D graphics more quickly. The Pentium III processor contains between 9.5 and 44 million transistors.

Governments and businesses frantically work to make their computers Y2K (Year 2000) compliant, spending more than \$500 billion worldwide.







## 2000

Shawn Fanning, 19, and his company, Napster, turn the music industry upside down by developing software that allows computer users to swap music files with one another without going through a centralized file server

Microsoft ships Windows 2000 and Windows Me. Windows 2000 offers improved behind-the-scenes security and reliability.

Telemedicine uses satellite technology and video conferencing to broadcast consultations and to perform distant surgeries. Robots are used for complex and precise tasks.

Dot-com companies (Internet based) go out of business at a record pace nearly one per day as financial investors withhold funding due to the companies' unprofitability.



## 2001

Microsoft releases major operating system updates with Windows XP for personal computers and servers. Windows XP is significantly more reliable than previous versions, features a 32-bit computing architecture, and offers a new look and feel.

Intel unveils its Pentium 4 chip with clock speeds starting at 1.4 GHz. The Pentium 4 includes 42 million transistors.

Microsoft introduces Office XP, the next version of the world's leading suite of productivity software. Features include speech and handwriting recognition, smart tags, and task panes.

Wikipedia, a free online encyclopedia, is introduced. Additional wikis begin to appear on the Internet, enabling people to share information in their areas of expertise. Although some might rely on wikis for research purposes, the content is not always verified for accuracy.



## 2002

After several years of negligible sales, the Tablet PC is reintroduced to meet the needs of a more targeted audience.

Digital video cameras, DVD burners, easy-to-use video editing software, and improvements in storage capabilities allow the average computer user to create Hollywood like videos with introductions, conclusions, rearranged scenes, music, and voice-over.





## 2002



Microsoft launches its .NET strategy, which is a new environment for developing and running software applications featuring ease of development of Web-based services.

DVD burners begin to replace CD burners (CD-RW). DVDs can store up to eight times as much data as CDs. Uses include storing home movies, music, photos, and backups.

Intel ships its revamped Pentium 4 chip with the 0.13 micron processor and Hyper-Threading (HT) Technology, operating at speeds of 3.06 Ghz. This new development eventually will enable processors with a billion transistors to operate at 20 GHz.



## 2003

Wireless computers and devices, such as keyboards, mouse devices, home networks, and wireless Internet access points become common place.

Microsoft ships Office 2003, the latest version of its flagship Office suite. More than 400 million people in 175 nations and 70 languages are using a version of Office.

MySpace, an online social network, is founded. MySpace allows users to share information, photos, and videos, as well as stay in touch with their friends and make new friends. MySpace eventually grows to nearly 200 million users, making it one of the more popular and successful online social networks.



## 2004



USB flash drives become a cost-effective way to transport data and information from one computer to another.

Companies such as RealNetworks, Microsoft, Sony, and Walmart stake out turf in the online music store business started by Apple Computer.

Flat-panel LCD monitors overtake bulky CRT monitors as the popular choice of computer users.

106 million, or 53 percent, of the 200 million online population in America accesses the Internet via broadband.





facebook



## 2004

The smart phone overtakes the PDA as the mobile device of choice.

Facebook, an online social network originally available only to college students, is founded. Facebook eventually opens registration to all people and immediately grows to more than 110 million users with more than 10 billion photos, 30 million of which are uploaded daily.

Sony unveils its PlayStation Portable (PSP). This handheld game console is the first to use optical discs.

Mozilla releases its first version of the Firefox Web browser. Firefox provides innovative features that enhance the Web browsing experience for users, including tabbed browsing and a Search box. Firefox quickly gains popularity and takes market share away from Microsoft's Internet Explorer.



## 2005

Apple releases the latest version of its popular pocket-sized iPod portable media player. First it played songs, then photos, then podcasts, and now, in addition, up to 150 hours of music videos and television shows on a 2.5" color display.

Microsoft introduces Visual Studio 2005. The product includes Visual Basic, Visual C#, Visual J#, Visual C++, and SQL Server.

YouTube, an online community for video sharing, is founded. YouTube includes content such as home videos, movie previews, and clips from television shows. In November 2006, Google acquires YouTube.

Microsoft unveils Windows XP Media Center Edition 2005. This operating system focuses on delivering media content such as music, digital photos, movies, and television.

Microsoft releases the Xbox 360, its latest game console. Features include the capability to play music, display photos, and network with computers and other Xbox gamers.

Blogging and podcasting become mainstream methods for distributing information via the Web.



Microsoft Visual Studio 2005

YouTube



## 2006

Web 2.0, a term coined in 2004, becomes a household term with the increase in popularity of online social networks, wikis, and Web applications.

Sony launches its PlayStation 3. New features include a Blu-ray Disc player, high-definition capabilities, and always-on online connectivity.

Microsoft and Mozilla release new versions of their respective Web browsers. Microsoft's Internet Explorer 7 and Mozilla's Firefox 2 offer easier browsing through the use of tabs and allow search capabilities directly from the toolbar.

Nintendo Wii is introduced and immediately becomes a leader in game consoles. The Wii is being used in revolutionary ways, such as training surgeons.

Intel introduces its Core 2 Duo processor family. Boasting record-breaking performance while using less power, the family consists of five desktop computer processors and five mobile computer processors. The desktop processor includes 291 million transistors, yet uses 40 percent less power than the Pentium processor.

IBM produces the fastest supercomputer, Blue Gene/L. It can perform approximately 28 trillion calculations in the time it takes you to blink your eye, or about one-tenth of a second.

Nintendo releases the Nintendo DS Lite, a handheld game console with new features such as dual screens and improved graphics and sound.

Apple begins selling Macintosh computers with Intel microprocessors.

web2.0



## 2007



Core 2 Processor



Intel introduces Core 2 Quad, a four-core processor made for dual processor servers and desktop computers. The larger number of cores allows for more energy-efficient performance and optimizes battery performance in notebook computers.

Apple introduces the iPhone and sells 270,000 phones in the first 2 days. iPhone uses iTouch technology that allows you to make a call simply by tapping a name or number in your address book. In addition, it stores and plays music like an iPod. Also, Apple sells its one billionth song on iTunes.

VoIP (Voice over Internet Protocol) providers expand usage to include Wi Fi phones. The phones enable high-quality service through a Wireless-G network and high-speed Internet connection. like an iPod. Also, Apple sells its one billionth song on iTunes.

Apple releases its Mac OS X version 10.5 "Leopard" operating system, available in a desktop version and server version. The system includes a significantly revised desktop, with a semitransparent menu bar and an updated search tool that incorporates the same visual navigation interface as iTunes.

Wi-Fi hotspots are popular in a variety of locations. People bring their computers to coffeehouses, fast food restaurants, or bookstores to access the Internet wirelessly, either free or for a small fee.

Half of the world's population uses cell phones. More and more people are using a cell phone in lieu of a landline in their home.

Microsoft releases Office 2007. New features include the most significant update to the user interface in more than a decade, including the introduction of the Ribbon, which replaces the toolbars in most of the programs, and the capability to save documents in XML and PDF formats.

Microsoft ships the latest version of its widely used operating system, Windows Vista. Vista offers the Basic interface and the Aero interface, which offers several graphical features, including transparent windows. Internet Explorer 7 is included with Windows Vista.





Windows Server 2008



Bill Gates



Dell Hybrid Computers



Smart Phone



Solid State Drive



Firefox 3



Google Chrome

## 2008

Microsoft introduces Windows Server 2008, the successor to Windows Server 2003.

Bill Gates retires from Microsoft. He continues as chairman and advisor on key development projects.

Dell offers a hybrid computer. Smaller than a desktop computer but larger than a notebook computer, these hybrid computers contain features comparable to their larger counterparts and can work more easily in a home entertainment environment.

WiMAX goes live! The advantage of this technology is the capability to access video, music, voice, and video calls wherever and whenever desired. Average download speeds are between 2 Mbps and 4 Mbps.

Smart phones become smarter. Smart phones introduced this year include enhanced features such as touch screens with multitouch technology, mobile TV, tactile feedback, improved graphics, GPS receivers, and better cameras.

Computer manufacturers begin to offer solid state drives (SSDs) instead of hard disks, mostly in notebook computers. Although SSDs have a lower storage capacity, are more expensive, and slightly more susceptible to failure, they are significantly faster.

Mozilla releases Firefox 3, the latest version of its Web browser. Firefox 3 offers greater security, a more user-friendly interface, and other improvements to enhance the Web browsing experience.

Google releases its new Web browser. Google Chrome uses an entirely unique interface and offers other features such as dynamic tabs, crash control, and application shortcuts.

## 2009

In June 2009, federal law requires that all full-power television stations broadcast only in digital format. Analog television owners are required to purchase a converter box to view over-the-air digital programming.

Apple releases the iPhone 3GS, the third generation of its wildly popular iPhone. Apple also announces the download of the one billionth iPhone program from the App Store.



## 2009



PSPgo



Internet Explorer 8



Core i5 & i7  
Processor



Social Networks



Netbook



Project  
Natal

Sony introduces the PSPgo, the successor to Sony's PSP (PlayStation Portable) handheld game console. The PSPgo includes 16 GB of flash memory, a new slide-open design, Bluetooth capability, and improved performance.

Microsoft releases Internet Explorer 8, also known as IE8. IE8 offers new features such as InPrivate Browsing, Accelerators, and support for WebSlices.

Web applications continue to increase in popularity. Web applications make it easier to perform tasks such as word processing, photo editing, and tax preparation without installing software on your computer.

Intel releases the Core i5 and Core i7 line of processors. These processors offer increased performance for some of the more demanding tasks. Intel also enhances its Core processor family by releasing multi-core processors, designed to increase the number of instructions that can be processed at a given time.

Social networking revolutionizes communications. Schools, radio stations, and other organizations develop pages on popular online social networks, such as Facebook and Twitter, creating closer connections with their stakeholders.

Microsoft releases the newest version of its Windows operating system, Windows 7. This version provides greater stability and security; a more flexible, user-friendly interface; and requires fewer computing resources to operate.

Notebook computer sales continue to rise, overtaking desktop computers. Advances in technology, decreasing notebook computer prices, and smaller sizes have businesses as well as individuals rapidly replacing desktop computers with more notebook computers.

Late of this year, Project Natal changes the way people play video games. Game players now can interact with the game with a series of sensors, as well as a camera, tracking their movements in 3-D.



## 2010



Hard disk capacity continues to increase at an exponential rate, with the largest hard disks storing more than 2.5 TB of data and information. Solid state storage also is becoming more popular, with storage capacities increasing and prices decreasing.



Google once again revolutionizes communications and collaboration with the introduction of Google Wave, which is a Web application allowing two or more people to participate in a conversation, while also allowing them to share data and information.



Individuals and enterprises increase their focus on green computing. Computer manufacturers not only sell more energy-efficient hardware, they also provide easy ways in which customers can recycle their old computers and devices.



Web Browser

Mozilla releases the latest version of its Web browser, Firefox 4, which allows users to run Web applications outside of the Web browser interface. It also enables users to synchronize their Web browsing preferences easily with an online service so that they can access the Web from anywhere.

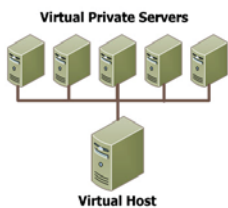


AMD Processor

AMD develops a 12-core processor, which contains two 6-core processors, each on an individual chip. Power consumption is similar to that of a 6-core processor but offers reduced clock speed.



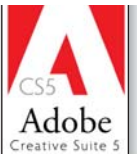
Microsoft releases the latest version of its Office suite 2007. This version is available in multiple editions and continues to help people work more efficiently. An edition of this version of Office also is available as a Web application.



Virtualization in servers, storage devices, and clients is more widely used in an effort to reduce hardware and support costs.



Decreases in storage costs and increases in Internet connection speeds persuade more users to use cloud storage for their data. Cloud storage also provides users with the convenience of accessing their files from almost anywhere.



Adobe releases the latest version of its design suite, Adobe CS5. This new suite has many performance and interface enhancements over previous versions and takes advantage of new technologies such as multi-touch.



Apple releases the original iPad and the iPhone 4.

Intel 3D Transistor



## 2011

Intel announces the commercialisation of 3D transistors.

The first 4 Terabyte(TB) hard drive is released by Seagate.

Seagate's 4 Terabyte(TB)  
Hard Drive



3.5" 4TB 7200 RPM SATA 6Gb/s

Raspberry Pi, a bare-bones, low-cost credit-card sized computer created by volunteers mostly drawn from academia and the UK tech industry, is released to help teach children to code.

Intel demonstrates its Next Unit of Computing, a motherboard measuring only 4 × 4 in (10 × 10 cm)

TDK demonstrates a 2 terabyte hard drive on a single 3.5-inch platter.

Microsoft releases the operating system Windows 8.

## 2012



Raspberry Computer



Intel smallest Motherboard



## 2013



Sony PlayStation 4

Sony releases the PlayStation 4 in the United States



Microsoft Xbox One

Microsoft releases Xbox One.

## 2014

The first 8 terabyte hard drive is released by Seagate.

Google releases the 64bits version of Chrome for Windows.

Intel unveiled its first eight-core desktop processor, the Intel® Core™ i7-5960X.



Seagate's 8 Terabyte  
Hard Drive



Intel's Core i7-5960X  
processor

