



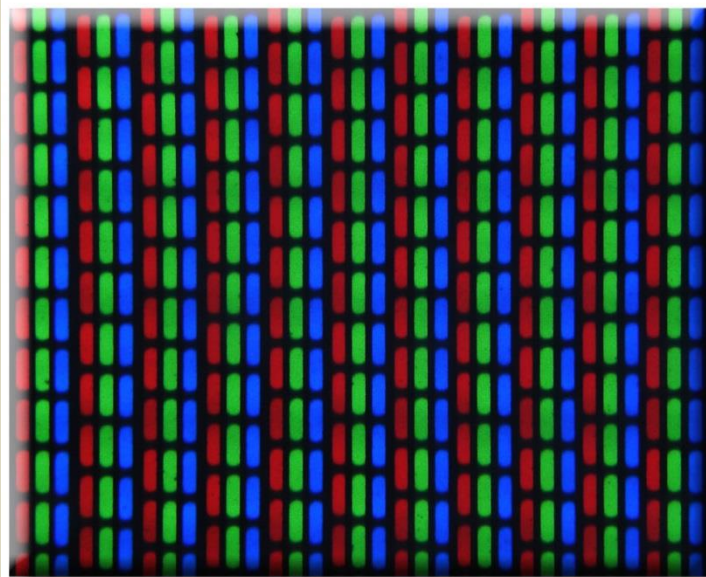
**A Brief History
of
Television**

Introduction

- Few inventions have had as much effect on contemporary society as television.
- Before 1947 the number of homes with television sets could be measured in the thousands.
- By 2010, 99 percent of Canadian homes had at least one television set, and those sets were on for an average of more than five hours a day.
- Unlike many other inventions throughout history, the history of the television credits many inventors instead of just one.

Image Transmission

As opposed to film, television does not provide a whole image to the viewer. Instead, the televised image is scanned. Scanning breaks down an image into lines of pixels that can be transferred into electrical energy and transmitted across distances.



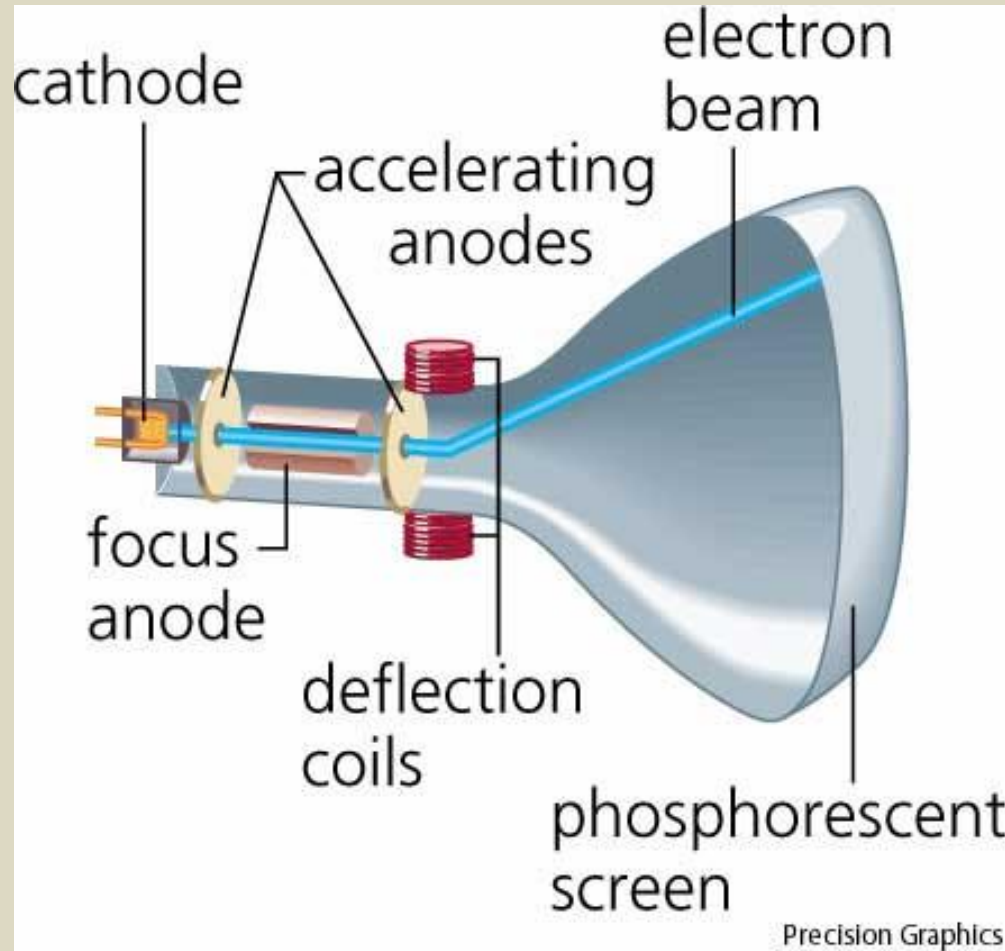
21" TV CRT Display



17" PC CRT Display

Cathode Ray Tube

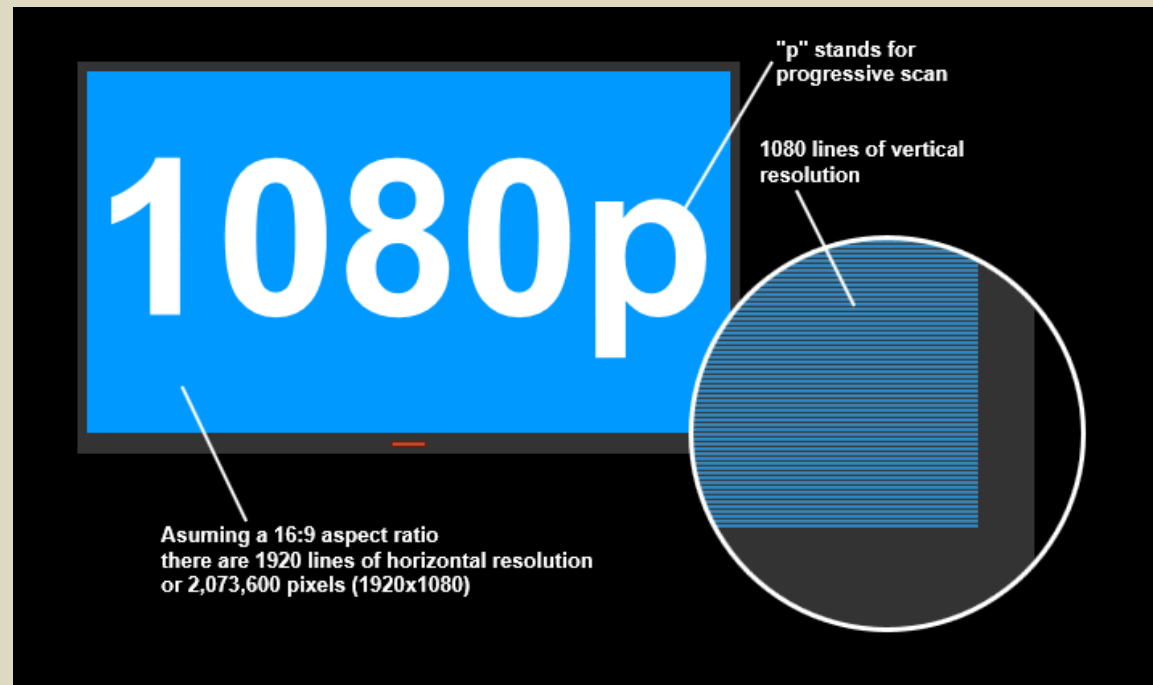
As opposed to film, with its mechanical progression of images, television produced motion pictures through a Cathode Ray: a focused beam of energy from the electrode inside a vacuum tube that projects images on the tube. = **Analog TV**



Digital and HDTV

Digital Television (DTV) is the transmission of audio and video by a digitally processed and encoded signal, in contrast to the totally analog and channel-separated signals used by analog TV.

It is an innovative service that represents a significant evolution in television technology since colour television in the 1950s.



Television and Culture

Television Is Important Because:

- We spend so much time with it.
- It helps create and support icons of pop culture
- It provides shared experiences
- It is the primary ambassador of North American culture
- It shapes our language, our values, our political, social and religious beliefs, our fashion sense and our lifestyle

Television Ratings

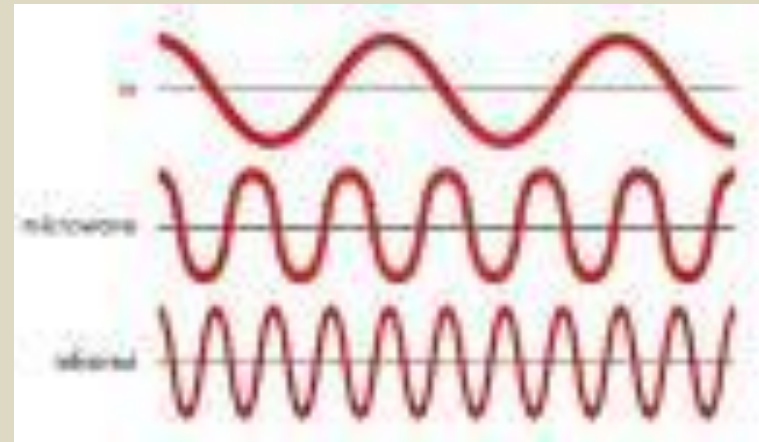
- **Rating** is the percentage of all homes equipped with TVs that are tuned to a particular station at a particular time.
- **Share** is the percentage of homes in which the television is in use and tuned to a particular station.
- **A.C. Nielsen** collects ratings for network and local stations, syndicated programs, cable channels, and World Wide Web sites.

The Invention of Television

1860-1865 James Maxwell: His equations theorized that electricity, magnetism and even light are all part of the same phenomenon: the electromagnetic field.

1880-1885 Heinrich Hertz: Proved Maxwell's theories and identified Electromagnetic Waves. A Hertz (Hz) Unit can be used to measure any periodic event; the most common use for hertz is to describe frequency of rotation, in which case a speed of 1 Hz is equal to one cycle per second.

1884 Paul Nipkow: Developed the Nipkow disc, the first workable device for generating electrical signals suitable for the transmission of an image.



Early Television Timeline

1900: The word “Television” is first used.

1922 to 1927: The 'first' generation of TVs were not entirely electronic. Experiments with Mechanical scanning disc systems began. The TV had a motor with a spinning disc and a neon lamp producing a picture. The picture was a blurry orange about half the size of a postcard.

1927 to 1928: First Mechanical TVs sold to the public. The period before 1935 was called the "Mechanical Television Era". This era was short lived because electronic TVs showed greater promise.

1928 to 1935: Early experiments were performed using a system called All-Electronic Cathode Ray Television (basic system of today).

1935 to 1941: An experimental form known as Electronic TV begins in: England, France, USA.

1941: Electronic Black and White Television begins broadcasting in the US. First two licensed TV stations were New York’s WNBC & WCBW.

Early Television Developments

- **1923** - Vladimir Zworykin, working for Westinghouse, demonstrated his *Iconoscope Tube*, the first practical television camera tube.
- **1927** - Philo T. Farnsworth completed a working model for a similar system.
- **1929** - David Sarnoff lured Zworykin to RCA where he developed the *Kinescope*, an improved picture tube.
- Inventors in several countries including England, Japan and Russia, claim to have come up with the idea of TV around the same time.
- **1939** - The World's Fair in New York, RCA made the first public demonstration of television.

milestones in television history

1927
Television invented.

1939 RCA introduces commercial television at the New York World's Fair.

1920

1930

1940

1950

1941
Technical standards for television broadcasting are established.

1948
The golden age of television begins with live dramas.

1966 All networks begin broadcasting all prime-time programs in color.

1975 Time, Inc., launches Home Box Office (HBO), the first premium cable channel.

1995
Warner Bros.' WB Network and Viacom's UPN start up, mostly to ensure these corporations that their production studios will have network customers in the future.

2006
Fox network syndicates *Arrested Development* to Web portal MSN.

1970

1980

1990

2000

1967
Public television is established as an alternative to commercial programming.

1985
Fox network, the first competition to ABC, CBS, and NBC since the beginning of the industry, is established.

1998
HDTV broadcasting officially begins, although few viewers have the sets to receive the new digital signals.

Early Television

- David Sarnoff of RCA built one of the first commercial television stations in 1932, with the transmitter in the Empire State Building, and spent a million dollars promoting the medium.
- Franklin D. Roosevelt became the first president to appear on television when he formally opened the 1939 World's Fair in New York.
- Early TV sets did not sell because they were very expensive, there wasn't much programming, and there were no technical standards.

Development of Technical Standards

- In the early days of TV, manufacturers would profit if their patents became the broadcast standard.
- Some wanted black and white to be the standard, while others were working on colour and wanted government to wait for it to be perfected.
- Other patents involved different **lines of resolution**, (rows of lit pixels), that made up the picture image.
- **In 1941**, the US government and industry agreed that television would present black and white pictures with *525 lines of resolution* moving at a speed of *30 frames per second*.

Broadcast Television

- Technically all broadcast television stations are local because signals that broadcast from a station's transmitter will only be seen up to 80KM from the transmission point unless picked up by cable, or satellite.
- About one quarter of all television stations in North America are public broadcasting stations supported by government (CBC, PBS, TVO).
- About half of all stations are **VHF**, or Very High Frequency, and operate on a channel from 2 through 13. The other half are **UHF**, or Ultra High Frequency, channels 14 and up.

Post War Growth

World War II Stops TV's Growth

Most of the engineers in television joined the military and developed radar, sonar, radio-guided missiles and battlefield communications.

Post-War Development

In the early 1940s audiences were excited to see any video so the industry broadcast anything available including talentless talent, live shots of a sunset and even test patterns.

By 1948, TV sales increased by 500 percent over the previous year, and viewership grew by 4000 percent.

Post War Growth

- 1948 to 1958 was a time of unusually good dramatic programming. *The fifties became the golden age of television.*
- Quality dramas were needed to attract wealthy, educated viewers who could afford television sets.
- Most television dramas were performed live because videotape recording had not been invented yet, and filming was too expensive.

Post War Growth

In the fifties, more TV sets (70 million) were sold than children born (40 million).

In 1952 there were 108 TV stations. Ten years later there were 541. Today there are about 1,600 stations in the U.S.

The big three networks – ABC, CBS and NBC – dominated programming. On any given night more than 90 percent of viewers were watching one of the big three.

The first issue of ***TV Guide*** appeared April 3, 1953, at the cost of 15 cents.

The Entrance of the Movie Studios

- In 1954 Walt Disney was the first studio leader to associate his name with a television program. Disney saw the possibilities of TV for promoting his Disneyland theme park and his feature films, as well as generating income from the program itself.
- After Warner Brothers began producing the western “Cheyenne” for ABC in 1955, all the major film studios started producing television programming as well as feature films.

The Future of TV

- Corporate mergers continue to reduce the number of “voices” heard in the television marketplace.
- Digital television (HDTV) becomes more commonplace.
- Reality programming becomes TV's favorite programming genre.
- TV programming becomes available through the internet, iPods, cell phones, etc.

Controversies

- To reach the greatest possible audience, most television programs are designed to make limited intellectual demands on their viewers.
- Most critics agree that TV entertainment is too violent – particularly when the violence goes unpunished or when a program ignores the real life consequences of violent acts.
- Extensive research into television indicates that exposure to televised material increases the acceptance of ethnic, racial, and sexual *stereotypes*.

END

