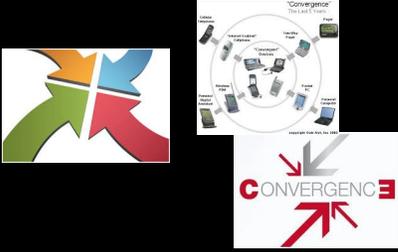


Convergence in Technology



The first graphic shows a large arrow pointing right, composed of four smaller arrows in green, blue, red, and yellow. The second graphic is a circular diagram with 'Convergence' at the top, showing various devices like a laptop, tablet, smartphone, and TV connected to a central point. The third graphic is a logo with the word 'CONVERGENCE' in red and black, with four arrows pointing towards the center.

What is Technological Convergence?

- Technological convergence is the process by which existing technologies merge into new forms that bring together different types of media and applications. New devices and technology usually handle one medium or accomplish some basic tasks; through technological convergence, devices can interact with a wider array of media types.

- For example, a new type of media storage often require new players that only play that format. As the technology advances, however, new models might include additional features like the ability to interface with more devices or play other types of media.

Developments in Media

- In the past, each entertainment medium had to be played on a specific device. Video displayed on a television through some type of video player, music came through a tape deck or Compact Disc (CD) player, and video games were played through a console of some sort.

- Technological convergence has resulted in devices that not only interact with the media they are primarily designed to handle, but also with a number of other formats.

- For example, modern video game developers may create consoles primarily for playing games, but they also design them to play back video and music and to connect to the Internet.

Similarly, new media players are capable of not only playing video or audio from a physical medium, but can also stream data over the Internet, display photographs on a disc, and view websites online.

Where multiple pieces of home entertainment equipment were once necessary, a single device may provide all of the functionality required.

Telecommunications Advances

Different forms of communication media previously used their own technologies. Voice conversations used a telephone, video communication briefly used high-end video phones, and e-mail required a computer.

Technological convergence has resulted in computers and handheld devices like mobile smartphones and tablets that can provide all of this functionality with a single electronic piece of equipment.

Smartphones are an example of technological convergence, as they provide the functions of different devices, like telephones and cameras, in one product.



As tablet computers can be used to play video games, send e-mails, and download music, they are considered an excellent example of convergence technology.



Changes in Hardware

- Such technological convergence also leads to devices that are designed specifically to replace a number of different items.

- Mobile phones, for example, have moved far beyond their beginnings as simple voice communication devices and now offer the functionality of personal music players, digital cameras, and text messenger systems.

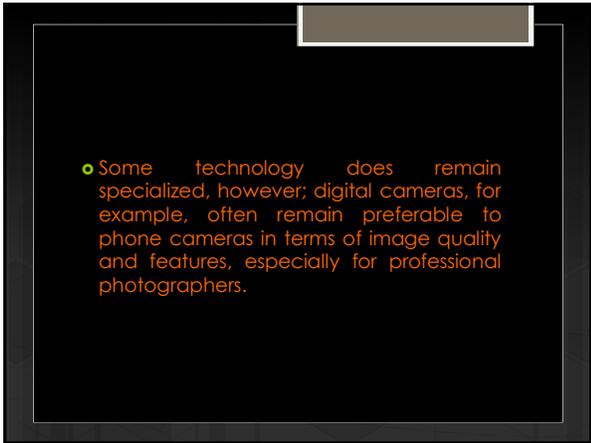
- New devices, such as tablet computers, have been developed simply as a format for convergence, with a single item functioning in the place of numerous earlier electronics.

Advantages and Criticisms

- While technological convergence gives consumers the convenience of having many devices all in one, saving on both size and cost, there is an initial trade off in quality.

- When companies introduce new multi-technology formats, the various technologies it is comprised of are usually at a slightly lower standard than on independent devices.

- Usually within a year or two, however, this disparate quality is reduced and dedicated devices may become obsolete.



- Some technology does remain specialized, however; digital cameras, for example, often remain preferable to phone cameras in terms of image quality and features, especially for professional photographers.
