

# [Topic about latest development in wireless multimedia essay](https://assignbuster.com/topic-about-latest-development-in-wireless-multimedia-essay/)

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Abstract: As the new developments in the technological field of sciences are advancing, the inventions are becoming more reliable and easier in use. It all started with the introduction of Integrated Circuits (ICs) which shrunk the size of the circuit board due to the miniaturized electrical components, then the influential achievement by man was the use of satellites in running machines through electromagnetic waves which eventually led to the beginning of wireless equipments. This era of wireless machines and technology gave us many products which are small in size and easy in carrying due to no wirings and therefore this science was used in communication which, on application, guided the scientist and manufacturers to create cell phones and other wireless devices that benefit us on our daily life. This paper will talk about the latest development in the field of wireless multimedia in daily use and communication purpose and its benefits. Introduction: Today all the products or gadgets that a person carries are mostly wireless, this is due to the fact that the technology is advancing day by day and new techniques are evolving so that the size of a machine or a product can be reduced and more applications and verities can be introduced in it.

The examples of these products are pagers, cell phones, mp3 players and PDAs which are used on daily basis by an ordinary person, therefore if the size of he product is bulky than there is a lot of problem in carrying all the things together and this is the reason due to which many people abstain from carrying all the things together (Nee, 1999). This problem was solved by the introduction of ICs and transistors in electronic equipments production field which, through use of these components, reduced the size of the chip boards or the circuit boards and a lot of applications were performed using the circuit board of very small size. Thus after the application was successful in technological machines or production industries, this advancement was introduced in daily use electronic products for house hold purpose which ultimately brought the dawn of the new era of wireless technology in multimedia and communication (Bojkovic & Rao, 2008). Wireless phones were a major hit in the early days and through further use of technology the advancement in the product came and the bulky size was miniaturized while further additional components were added to it.

Then came the age of cell phones which turned the course of this field around and telecommunication became a far diverse field than before which contained different categories in advancing the communication process. Nowadays a small size cell phone is a networking device, file sharing device and a multimedia device through the introduction of MP3 Player, Bluetooth, internet, camera and camcorders and Wireless LAN, while these features doesn’t end here, a lot of latest developments are taking place for the benefits of the user and are surely astounding (Ganz & Wongthavarawat, 2003). Wireless Multimedia Communication: Wireless Multimedia Communication is the process of communicating through the use of multimedia devices which include an arrangement of transcript, audio, still pictures, simulation, video and interactive matter, while a Multimedia Communication System is a system that controls more than single media stream in a corresponding method through the customer’s approach. This may perhaps permit the interface of several participants, various connections and the accumulation or removal of possessions and the user under a particular interaction session.

It, somehow, include all the ways of interaction between people because all the communication devices in the world are related to multimedia or are the multimedia devices, be it through the texting of messages in cell phones or the video conferencing in an enterprise meeting every thing is done through the multimedia devices. Wireless technology first came into creation when Alexander Graham Bell in collaboration with Charles Sumner Tainter invented the telephone, which could perform communication process through wireless electromagnetic waves, so through further research and advancement communication in space programs was made applicable and it was not until this era that fiber optical cables and wireless networking was brought for communication and interaction process. But due to the advancement of science and technology this communication process was then performed through the use of multimedia devices (Nee, 1999). The most used wireless device in the world is the television remote which is used to control the working of television from a small distance and his is said to be the most famous wireless device. According to a survey the cell phones and cordless phones became very popular customer product and there were almost 250 million users in the year 2000 while this rate increased at a rate of 500 to 600 million users per annum.

This shows the importance wireless networking has on the daily basis life of a person. The use of multimedia in every organization is very essential and every employee is expected to know the working and operation of multimedia devices, these devices include the computer systems in the offices, internet devices, projectors and speaker and sound system. During the conferences of a company the presentations are given through the use of multimedia equipment, which contain the use of Microsoft Power Point and the images or slide shows uploaded though the internet. They are then delivered to a computer system which then transfers the image to a screen by the use of a multimedia projector. Thus a presenter can show different slides, images and animations to convey the message and all of this is included in the wireless networking or the communication through wireless multimedia (Ganz & Wongthavarawat, 2003).

This procedure was different some years or decades ago as the computers used in the course of action were full of wiring system but as the technological equipment improved the use of laptops came underway and now all of the users utilize laptops in their work as it occupies less space and can perform the same work without any problems. The use of batteries is increasing a lot as almost all the wireless systems are run through the use of batteries, these are either dry batteries or solar operated batteries which can charge themselves through the sun light and have quite a long duration to operate a device. This is the cause of using multimedia in these operations so that the message can be conveyed easily and with interest as many people enjoy listening to a presentation which comprises of different interesting postulates and pictures (Bojkovic & Rao, 2008). In the days before the wireless multimedia was introduced people use to talk using telephones and the wiring system used to create a lot of mess not only at the place of usage but also outside the venue as almost all the wire accumulate at one junction creating a lot of mix up and one damage in wiring system means the whole repayment of the wire, therefore the use of wireless technology in multimedia led to the creation of cell phones we have today as they contain not only the device for communication through dialing but also the wireless networking and multimedia properties (Wesel, 1997). An ordinary cell phone today is a GSM based cell phone and works on the wireless technology through the satellite transmission of signals but the addition of multimedia properties have made it a fully loaded gadget as it contains a camera which is now available up to more than 10 mega pixels, mp3 player with a micro slot of memory card that can be extended up to more than 20GB, voice recorder, camcorder, fm radio and different multimedia properties, therefore through this a person can not only communicate but also use the same cell phone as a portable wireless multimedia device. This is not the only thing a person gets fascinates with in today’s mobile phones but the latest development in the wireless multimedia in the cell phones is the television device which can show live television and it can also be used in meeting as a device for presentations, all a user needs to do is plug in the multimedia projector in the cell phone and it acts as a device just like laptops containing the slide shows (Passas & Salkizis, 2005).

The other latest development in the wireless multimedia is the use of Bluetooth, it is the file sharing and a networking method in which two electronic devices containing this facility can be paired up and networking, communication and file transfer can take place. This is very useful when used in offices and organizations as they need to keep in touch with the other people and as it has a wide range of connectivity so it works quite well in the organizational location. The Bluetooth is followed by the Wi-Fi, which is the wireless LAN used in laptops and mobile phones for the connectivity of internet and it is now introduced in many wireless multimedia devices and gadgets including iPod by Apple Company (Bojkovic & Rao, 2008).

This is a real good and unique development in the field of wireless multimedia communication as people can keep themselves updated through a constant connection of internet, the Wi-Fi has a device which woks under a certain location and supervision and each wireless LAN provider have their own pass code for the connectivity which is than used to gain access to the application of internet. In cell phones this device is getting quite popular as users can surf on net, log onto the social networking sites like Facebook, Twitter and My Space and also can communicate through its use. Another latest development is the introduction of wireless internet through the Universal Serial Bus (USB), this is done through the use of a USB which had a high speed internet connection and when plugged into the computer or ay networking device grants access to the internet at a high speed and its all due to the wireless networking done through the satellite signals. These high speed network USBs come in a wide range of verities ranging from 128Kpbs to 4-6 Mbps, which is a very useful device when comes to wireless multimedia communication as it can be used for household usage, offices and organizations, small or large scale business companies and places where wiring system is very difficult to reach (Bojkovic & Rao, 2008). Satellite televisions contain the same devices through which they wok on the basis of wireless network catching signals from the satellite sent from the broadcasting station, also the use of Bluetooth is now available in headsets and headphones making them wireless. When the headphone is tuned on, it is connected via Bluetooth to the multimedia device which can be either a cell phone or a laptop producing a quality output of sound, therefore his technology advancement is in a lot of demand by the young generation who carry these gadgets and do not like wiring systems of headsets, this can also help people when they drive as the Bluetooth headset can fix easily in the ear and prevents the diver from picking up the whole cell phone for attending a call avoiding any accidents (Goldsmith, 2005). One of the greatest achievements made through the use and advancement of wireless multimedia communication is the introduction of virtual reality and the virtual simulations used for the training purposes for military and other use, virtual reality and simulation is used in training the beginners in military and arms forces for operating the missile systems and aircraft and they are all controlled through a wireless multimedia devices and progress in development of these areas is still under way and many brilliant ideas are reshaping its concept. This has started a whole new chapter in science and technology field including the creation of video games and other animations which get quite famous in the young generation like the introduction of Play Station 3, Nintendo and X Box 360.

These multimedia devices allow not only the young generation but gamers all over the world to enjoy a whole new world of computer graphics and gaming. Even the movies today are now being judged on the use of computer graphics and this is all being done through the use of wireless multimedia (Ganz & Wongthavarawat, 2003). Thus Wireless Multimedia Communication is a very useful and essential part of our daily life staring from the use of a simple cell phone and going all the way to the wireless satellite network and simulations. Wireless: Wireless communication is the transporting of data without the use of any electrical copper wires over a certain distance, these distances can either be short (a few feet) or long (thousand or million of kilometer for radio frequency transmission) and due to this feature it is known as “ Wireless” and it is an important branch for telecommunication the IEEE 802. 11 the standard for wireless LAN and communication (Goldsmith, 2005). This technology allows two or more computers to work together by the use of standard network protocols and is called wireless networking or wireless communication and the devices used for this procedure are called the wireless networking devices. Wireless LAN is gaining popularity and is used in offices and other institutions and its greatest benefit is that it can be used in complicated places where wiring and other networking setup is difficult.

Wireless devices do not bound a user to sit at one place but allows the user to access the internet from any where and contains high-speed and no wiring thus the user is comfortable in every way (Bojkovic & Rao, 2008). This is being used companies and some firms for connection bridging so that if workers move from the building to the other, they would still be logged on their laptops with same facilities. However laptops are the most preferable devices for this technology and now cell phones and pagers are also equipped with this technology and are benefiting the users. The wireless technology devices includes different types of radios (portable, dual-channel), cell phones, Personal Digital Assistants (PDAs), USB devices, multimedia players (like iPod), while in every day house hold life this technology can be seen in the garage door openers, wireless keyboards and mouse for computers, satellite televisions, cordless phones and Bluetooth enabled wireless headphones and headsets (Passas & Salkizis, 2005). The technology of wireless networking and communication is advancing at a rapid pace, the scientist and engineers are working to create a world wide wireless networking device so that every one in the world can be blessed with this helpful invention and the use of wires can be reduced. Although today the use of fiber optic cables is very necessary but it too helps in transmitting the wireless networking signals.

So it is becoming a daily use interacting, communication and controlling device which is now seen in different miniaturized forms. Multimedia: Multimedia can be described as the digital demonstration of combination of sounds, videos, pictures, information and graphics. A medium can both be linear medium or 2D medium also known as the time supported medium, together it is termed as multi media. It is then used to develop information through the use of graphics, images, sounds and other media devices and terms. Mostly computerized and electronic devices are used in recording and playing the Multimedia files, and it has quite a lot of advantages which include the improvement of text presentation, enhancing the quality of presenting the data and keeping the viewer’s concentration.

It is brilliant when used on computer and is used for educational and entertainment purpose, its modification is very easy and can be easily and quickly operated by the user (Nee, 1999). The use of multimedia is in a lot of field which include entertainment and arts where it is used for the creation of video games, computer graphics “ special effects” in movies; in educational purpose where this field is used for computer training process and media development and graphical designing while some newspaper companies make us of multimedia for the publication and advertisement; in engineering field it is being used for computer aided designing and simulations for the prototype creation and is a great help for software engineers and developers moreover in industrial sector it is used for training of a worker, product development and selling and presenting ideas to the superiors (Passas & Salkizis, 2005). Multimedia is also very useful in medical field as the doctors are trained via virtual reality based surgical operations to get an idea of the spreading and consequences of any disease, thus developing the cure for it while last but not the least is the conversion of documentation from hard copy to digital format through scanning and data transfer (Bojkovic & Rao, 2008). So the Multimedia is quite useful when comes to the operation in today’s era as its all computerized and technological. Others: The other mean of communications with out the involvement of multimedia is the use of over head projectors or OHPs which are used to show transparencies for presentation purpose which is used in a lot of low scale purposes and in places where the use of multimedia projectors is not very common or there is no availability of it.

But as it is one of the earliest forms of presenting the data so it is still in recommendation, it is cheap and does not involve any connection to PC or laptop. Thus is one of the easy and low priced methods of interaction in meetings or any other presentation (Passas & Salkizis, 2005). Conclusion: So after going through the whole development and advancement, the multimedia product or the device given to us helps in a lot of ways and makes our life easier. Interaction, communication and the controlling of different small tings can be done easily through its use. Multimedia provides entertainment and it is the only reason people hold on to the subject rather than getting bored by the transparencies shown through the over head projector. Live motions and technique is the purpose of keeping the interest of audience to the information. The development in this field would not come to an end, and people would get fascinated by the upcoming inventions in the field of wireless multimedia and communication.

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Nee, R. V., (1999), OFDM for Wireless Multimedia Communications, 1st edn, Artech House Publishers, USA. Passas, N. & Salkintzis, A.

, (2005), Emerging Wireless Multimedia: Services and Technologies, 1st edn, Wiley, USA. Wesel, E. K., (1997), Wireless Multimedia Communications, 1st edn, Addison Wesley Longman, USA. Diagrams: Diagram for wireless networking and multimedia communication                                      Variation of Multimedia Sound with time: Time VariationTT     Tttt  Time Variation of SoundTT     Tttt