INTRODUCTION
Imagine a situation! – You want to hear some chaste carnatic classical music and the only way is to request some one to ‘sing live’ for you. You have heard about great masters in music and there is no way you can appreciate their music at all because they are not alive any more. You need to travel far and wide if you have to hear good concerts because, the same artists sound so different among different types of audience; and you have to go in person to the concert, get a place close to the artiste and hope there are no people indulging in comments and conversations sitting next to you.

Imagine a situation when you are a carnatic music performer, and want to have a feedback on your performance. The only way is to take someone whose opinion you trust and ask them. There is no way you can hear yourself at leisure and improve.

Imagine a situation when you as a carnatic music teacher have to repeat the same class time and again for a not so bright student and you being an artist, sometimes vary the ‘sangathis’ a bit and the student gets thoroughly confused. Or the not so bright student takes more than 8-10 classes to learn a slightly complicated phrase because he/she cannot hear it /learn it elsewhere but only from the teacher.

Though the last situation still prevails in many places, the other two situations have thankfully become a thing of the distant past, due to that fantastic set of equipment called the public address system and sound recording machinery.

1.1 **Indian Music**

Indian music, one of the oldest unbroken musical traditions in the world, is the brightest and rarest gem adorning the crown of Indian culture. Its beginnings go back to the pre-vedic, and pre-historic times. India had developed a far more advanced, magnificent system of classical music compared to other cultures,
even then. India was the first country to evolve a solfa system. Music (Sangeetham) is a combination of three art forms: geetham (vocal music), vadhyam (instrumental music) and nrithyam (dance). Although these three art forms were originally derived from the single field of stagecraft (sangeetham), today these three forms have differentiated into complex and highly refined individual art forms and all these three forms revolve around the solfa system.

Indian music evolved on melodic lines and has reached points of tremendous sophistication. Melodic aspects are the main anchor points of Indian music, but it is balanced with the rhythmic aspects in an admirable manner. The musicians are exceptionally conversant with musicology too. Weaving all these aspects together, the music is soothing to the musician and the listener.

In India, musicology was called “Gandharva Tatva”\(^1\). The gandharva tatva existed during the Yajur Veda itself. The Great sage Vedavyaasa has combined Upanishad, Brahma sootram and Srimadh Bhagavat Geetha and termed as ‘Sruthi’. There were no writings then in the form of palm leaf inscriptions or printing press. All of the narrations were transferred by word of mouth from Guru to shishya and so on. Such knowledge is termed as sruthi. Since this knowledge was transferred musically – it has been proved that narrations are retained better if it is done musically – later, the pitch in which these narrations were conveyed came to be termed as sruthi.

Carnatic music is largely devotional. Most of the songs are in praise of the Hindu deities. Carnatic music began as a spiritual ritual of Hinduism. Until Islamic invasions of north India, there was only Indian music. Then the music in northern part of India changed under Arabian & Persian influence, becoming Hindustani Music. The music in South India remained comparatively

\(^1\) [http://classicalvibes.com/mtt.htm](http://classicalvibes.com/mtt.htm)
unchanged and was called Carnatic Music\textsuperscript{2}. “Carnatakam” means ancient & this music has been proved to be the oldest of music cultures across the world. With the Persian invasions came a lot of artists, singers and scholars and thus evolved their own styles of music. Thus Indian Music divided into Northern and Southern Music; basically known as Hindustani and Carnatic.

The music of India managed to survive with most of its own identity fairly intact, because of various reasons. The guru-shishya parampara, was one of the main reasons. The teacher-student tradition established a set way of learning and passing on information down the generations. These qualities would include the very highly scientific structure within which a musician could operate with total freedom, the aesthetic appeal of the music, the melodies and the unmistakable spiritual aspect of the music.

1.2 **History**

Music, according to Hindu mythology, originated with the first sound ever to be heard in the universe, the Naadhabrahma, or Om\textsuperscript{3}. This Naadhabrahma pervades the entire universe and, being a manifestation of the divine power (or Brahma), is the purest sound to be heard. It is this purity that the musician attempts to achieve in his dedicated pursuit, or sadhana, of the music he is involved in.

A historical study of Indian Music unravels the distinctive stages of evolution and involves an analytical study of the development of music dating from the primitive period to the present day. The distinctive stages have a variformed range of culture and civilization of India. Since it is difficult to study the different periods, because they are overlapping, the periods of musical development can be broadly divided into three periods as the Ancient, the Medieval, and the Modern.

\textsuperscript{2} History of Indian Music, Prof P.Sambamurthy

\textsuperscript{3} Indian Classical Music – Deepika Singh
Where Indian cultural history is concerned, the farthest one can go back is, perhaps, the time of the Vedas, approximately 5000 to 4000 BC. The Vedic chants themselves, though, would date back even further because before writing, sruthi (sound or speech in this case) and smriti (memory) were the only means of passing knowledge down the generations.\(^4\)

The Vedic chants, set in three basic notes, formed a melody giving them a rhythm that probably made them easier to remember. Music, however, was obviously in existence and practiced much before the Vedas were written. Research indicates that the Samaveda had a rather complicated way of chanting that used more than just three notes as in the case of the other Vedas. Also, it has been found that a rather definite scale of svaras (notes), had been arrived at by scholars of the Vedic period.

As the centuries faded into one another and civilizations like that of the Indus valley rose and fell, the writings of the Vedas endured. It is difficult to say how many manuscripts actually survived and how many took the beating of time then. However, the people of that time followed the way of life as propounded in the four books – the four Vedas viz: Rik, Sama, Yajur & Atharvana – and most cultures and societies of the time continued studies in the realms started by the Vedic sages.

Natya shastra by Bharata, Naradi Shiksha by Narada, Brahmansesi by Matanga, Sangita Samaya Sara by Parsvadeva etc which date more than 2500 years back talk about the evolved stages of carnatic music. The Vedas, the Brahmanssa, the Upanishads and the Jaataka legends contain valuable references to music. The Ramayana contains many references to music and dance. It mentions the 3 sthayis, 3 layas and many musical instruments. The Mahabharatha mentions the seven swaras and the gandhara grama. The Rikpratisakhya refers to the seven

\(^4\) Indian Classical Music – Deepika Singh
notes and the 3 voice registers. The Vayu Purana gives new names for the
murchhanas. It deals with the swara mandalam - the 7 swaras, 3 gramas, 21
murchhanas & 49 tanas. The Brahma Purana has music chapters. The
Panchatantraa stories have animals talking about swaras, gramas, murchanaas,
tanas, laya, mathra, yatis, rasas etc.

1.3 **Absence of Recorded Music - Effect on History**

In the absence of any audio recording media, the history of Indian music has
been recorded only on coins bearing pictures of musical instruments, copper
plates with special kruthis engraved on them, stories about some special aspects
of the evolution process etc⁵. We have no absolute proof to say exactly how
music was sung in those days or how the instruments sounded or even how the
voices of the musicians sounded, except some comments like “He had a deep,
resonant voice, the instrument sounded sweeter than a woman’s voice” and so
on. The rest is left to our imagination. Written notation of Carnatic music was
revived⁶ in the late 17th century and early 18th century, which coincided with
rule of Shahaji II in Tanjore. Copies of Shahaji’s musical manuscripts are still
available at the Saraswathi Mahal Library in Tanjore, and they give us an idea
of the music and its form. They contain snippets of solfege to be used when
performing the mentioned ragas.

If audio recording media was available in those days, we could now actually
hear how the voices of the rishis chanting sama veda sounded, how the
compositions of great masters sounded when sung originally by them, what
exactly the historians meant when they tried explaining some musical
evolutions, and so on instead of having to be happy with the end result of a
game of “Chinese whisper”⁷ where about 50 people sit in a circle and the first

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⁵ History of Indian Music – P.Sambamurthy
⁶ en.wikipedia.org/wiki/Carnatic_music
⁷ www.chinesewhispers.com
person whispers a sentence into the second one’s ear and the second person whispers that into the 3rd person’s ear. By the time it reaches the 50th person, the sentence is so distorted that often there is no connection between the first & final one.

Without audio recording, one was not able to hear oneself. This meant that self criticism and improvement was not possible at the level that is possible now with the help of recording technology. Also one was not able to listen to musicians from a different era. One just had to be satisfied with praise/comments/criticism by others who heard them & wrote about it – which again is very subjective.

1.4 **Teaching Methodology**

Carnatic music was traditionally taught according to the system formulated by Purandara Dasa. This involves varisais, alankarams, geethams and swarajathis. After a certain standard has been reached, Varnams and later kruthis are taught. It takes several years of learning before a student is adept to perform. Traditionally, a student lived with the guru for several years and learnt the art and other finesse from the guru. This was called “Gurukula” system of learning. Musicians preferred Guru-Shishya parampara – from time immemorial. Since the shishya lived with the guru, there was no other influence on the shishya. This meant that the students absorbed the guru’s style and made it their own. The little changes that happened were only to help them optimize the style to their own voice and intellect. There was no dilution of ‘padaandram’. Due to this, the gurus were very possessive about their music and shishyas. If a mediocre shishya learnt wrong things, and propagated it that way, it could lead to complete loss of face for the guru.

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8 [en.wikipedia.org/wiki/Carnatic_music](en.wikipedia.org/wiki/Carnatic_music)
From 20th Century onwards, with changes in lifestyles, music also evolved a lot of changes. The need for young music aspirants to simultaneously pursue a parallel academic career became a priority for the youths too. Therefore, the gurukula system disappeared gradually. In modern times, the guru-shishya parampara still prevailed, but with a different outlook. The students went to their gurus’ school or their respective houses daily or weekly for a couple of hours to learn music. Though new technology has made learning easier, with availability of the recording media, pre recorded cassettes, CDs etc, the gurus preferred to teach one on one as they would make sure they have imparted their best and the student also grasped music to the minute.

But many gurus now record the classes for the students. Blank audios tapes and a small tape recorder also helped in teaching. A teacher could record a class in progress and the students could use it again and again to perfect rather than the teacher spending precious time with the student to help him perfect it. This helps the students a great deal since, if a student has a doubt, he/she need not wait till the next class, but can refer to the record. Sometimes gurus record a very lengthy class where one full kruthi is taught. Though generally this takes many classes, the record transforms the single class in the many ones needed by the student to perfect this. This also saves the guru time and energy.

Also one can learn different padantharams from different recordings. The purity of a single school of music being passed on to shisya to shisya was finally lost. One could learn through the cassettes, songs belonging to any school of music and mix and match them in concerts. But this also brought a better propagation. No dilution of quality due to a poor shisya. And many older masters could record their music for posterity. Also many connoisseurs used this to record their favourite maestro’s concert live or in AIR so that they can enjoy it time and again at leisure.
1.5 Transmission

Carnatic music continued to be transmitted orally for centuries without being written down\(^9\). Till microphone was discovered and later audio recording was made possible, the propagation of music was only through hearing, learning and again passing on to others by hearing - “SEVI VAZH KALVI” was the only way and as this was not a perfect way, a lot of problems arose.

If a particular student was not good, he/she could learn it wrong and hence propagate it wrong. And because of this, gurus were very possessive of their music, and were willing to teach only to such students who, according to them will be loyal and also good enough so that the quality doesn’t suffer during propagation.

The disadvantage with this system was that if one wanted to learn, say a kruthi of Thyagaraja, it involved the difficult task of finding a person from Thyagaraja’s lineage of students.

Since “SEVI VAZH KALVI” was the norm those days, the Chinese whisper mentioned earlier was the way music was propagated. By the time it crossed districts, one can’t be sure what percentage of the original piece was retained. And if the standard of one student declined, the chance of the originality being retained became even smaller. The reason that there are so many arguments about the exactness of compositions of great maestros is that we have no way of telling where the whisper changed.

Today’s composers are making sure that they record their composition in audio format so that there is no place for any doubt. Also, while teaching, by also recording it, they make sure that the student can refer back many times to make a perfect repeat rendition. Transmission loss is minimized.

\(^9\) www.newworldencyclopedia.org/entry/Carnatic_music
1.6 **PERFORMANCE**

Musical activity is basically a form of communication between a musician and a listener. Music is one of the joys of humanity. It is the universal language of feeling and a great unifying force. Study of musical sound involves the study of physics, physiology and psychology of sound\(^\text{10}\). It is best for a musician to be acquainted with all the nuances of sound for the musician to give his best to the audience.

Carnatic music is usually performed by a small ensemble of musicians, who sit on an elevated stage. The ensemble usually consists of, at least, a principal performer, a melodic accompaniment, a rhythm accompaniment, and a drone. Performances can be musical or musical-dramatic. Musical recitals are either vocal, or instrumental in nature, while musical-dramatic recitals refer to Harikatha\(^\text{11}\). But irrespective of the type of recital it is, what are featured are compositions which form the core of this genre of music.

The performance of a composition, based melodically on one particular raga and rhythmically on one tala, begins with the performers coming out in a ritualized order – drone instruments, then the soloist, then accompaniments (usually stringed instruments like the violin or wind instruments like the flute) and percussionists (like mridangam, ghatam, kanjira, morching). The tanpura or the sruthi box is the traditional drone instrument used in concerts which helps the musicians tune their respective instruments and maintain the same harmony till the end of the concert. The drone itself is an integral part of performances and furnishes stability - the equivalent of harmony even in Western music.

The objective of the accompanying instruments is far more than following the melody and keeping the beats. The accompaniments form an integral part of

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\(^{10}\) Acoustics of Music by Wilmer T Bartholomew

\(^{11}\) [www.icmca.org/explore/music/carnatic/concerts](http://www.icmca.org/explore/music/carnatic/concerts)
every composition presented, and they closely follow and augment the melodic phrases outlined by the lead singer. The vocalist and the violinist take turns while elaborating or while exhibiting creativity in sections like raga, niraval and kalpanaswaram.

In carnatic music, the accompanists have to follow the intricacies of the composition since there are percussion elements such as eduppu in several compositions. Some of the best concerts feature a good bit of interaction with the lead musicians and accompanists exchanging notes, and accompanying musicians predicting the lead singer's musical phrases.

The concerts were normally of 4 – 5 hours duration. There are instances when, due to the request of an appreciative audience, concerts were performed throughout the night too. Those were the times when the variety in entertainment was less. And people had more time at their disposal for these concerts. This slowly changed as lifestyles changed and concert venues changed.

Due to lack of microphone & PA systems, only musicians who can really throw their voices were popular. The very soft nuances went unappreciated. Accompaniments also had to be loud – Flute, Mridangam, Nadaswaram, Thavil etc. Soft instruments like violin etc were hardly heard. Upa pakkavadyams like morching etc also were hardly heard.

And since there was no PA system, only the affluent could hear great music - organized for the patrons - Kings, Zamindars etc. All this changed when the ‘Microphone’ came into use. First the concerts shifted place. Now ordinary folk could hear it due to the P.A system. The temples became obvious places to organize the concerts. Sangitha Sabhas also started organizing music concerts to popularize music.
1.7 **AUDIENCE**

The audience is an integral part of a Carnatic concert. Most of the times, the concert is partially interactive. The audience also had a reasonable understanding of Carnatic music. It is also typical to see the audience tapping out the *tala* in sync with the artist's performance\(^{12}\). As and when the artist exhibits creativity, the audience acknowledges it by clapping their hands. With experienced artists, towards the middle of the concert, requests start flowing in. The artist usually sings the requests, and it helps in exhibiting the artist's broad knowledge of the several thousand kruthis that are in existence.

In those days, Kings, Zamindars & people from the very elite society were the privileged ones who could enjoy the music. Since there was no PA system, the audience was a small number. They were either patrons of music or fellow musicians.

Ordinary common folk could hear music only in temples when the musicians sang as part of their prayers when visiting such temples. The “PAAMARAN” was not privileged enough to hear this. Most of the programs organized in temples during festivals were Harikathas. Pure classical music was still in the durbars of kings, zamindars & the elite.

With the advent of microphones & PA systems, a large gathering could hear the musician live. The concert venue shifted to the temples, music sabhas and chathrams. At last the common man also had the opportunity to hear good music. When the introduction of gramophone records & pre-recorded cassettes made this music to be played even in the tea shops & finally the music was available to any one who wanted to hear it.

\(^{12}\) [en.wikipedia.org/wiki/Carnatic_music](en.wikipedia.org/wiki/Carnatic_music)
The negative aspect of this is that the audience was not exclusively learned anymore. The musicians who used to derive great satisfaction earlier singing to enlightened audience felt the difference – their music also suffered since they found the new audience had a different need. They gave simpler, catchier tunes demanded by the common man. The purity of carnatic music also got diluted. The lighter versions and even some folk tunes were introduced into the concerts.

### 1.8 Carnatic Music in Films

With the invention of recording, music started entering films. Many actors in the early twenties were basically classical musicians. Before playback singing came into effect, the basic requirement for an actor was that he/she could sing Carnatic music. Carnatic musicians like GNB, MSS, MLV etc started acting in movies. Once, magnetic recording came into force, play back singing and music scoring also entered films.

Also All India Radio started recording concerts and broadcasting them - live or recorded. This meant the common man could hear good music in the luxury of home. Carnatic music started to be being liked & appreciated by a wider part of the society, who enjoyed hearing their favourite actors sing & since it was Carnatic music based, they unknowingly started appreciating the tunes.

Even in recent times, when there was a decrease in listeners to carnatic music, films gave a new life. With the advent of music being recorded in LPs, a man could buy these records and listen to them in the luxury of his own leisure time. The open reel brought in quality HI-FI music. Cassette tape brought in portability and cost effectiveness. It made it a little easier for the students to listen and improve from the great masters.

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13 [www.hinduonnet.com/folio/fo0012/00120390.htm](http://www.hinduonnet.com/folio/fo0012/00120390.htm)
Multitrack recording came into vogue as an influence of film industry\textsuperscript{14}. This helped Carnatic music a great deal - a mistake by the vocalist or the accompanist can be corrected easily without disturbing other portions. Also, a multi-faceted vidwan could record the vocal first & accompany him on another track.

This led to audio editing – a very novel, unique idea in carnatic music. Musical knowledge is a must in carnatic music editing because it is a continuous concert and only a musician will understand the perfect places to cut and splice so that the listener is not aware that a joint has been made. The cut should not only be smooth as far as the swara, total line etc are concerned, but also be smooth in terms of loudness, tone, mood etc.

\textbf{1.9 The Reason for this Research}

Since there were many scholars who were accusing the electronic media for the deterioration of Carnatic music, there was a need to find out the change in the trend in the development of carnatic music after the microphone was invented and used for recording & as a public address system’s aid. The changes in various areas as follows had to be documented.

1. To know the changes this effected in the teaching of carnatic music.
2. The changes in the concert styles – duration, structure etc.
3. The uniqueness of a guru’s style being followed by sevi vazhi”.
4. Inter dependency or interweaving of carnatic music with film music.
5. Spreading of music appreciation among non-rasikas through film music, etc.
6. To understand the rasika’s craving for quality music - hi-fi - and hearing it in the luxury of his home - LP, EP, Open reel, Cassettes, Digital CD’s, MP3’s etc.

\textsuperscript{14}ww.reference.com/browse/wiki/Sound_recording
7. Change in venue from open temples to acoustically treated, air-conditioned halls with good PA system.
8. To understand multitrack recording - an influence of film industry.
10. To understand the latest methods being used for teaching, in concerts, in recording halls, in films and in broadcasting.
11. With respect to all the above, to desire an understanding of the future.

1.10 **Scope**
This study is restricted to carnatic music’s development in:

1) The way it is taught
2) The way students absorb it.
3) The way films incorporated carnatic music & the commoner appreciated it.
4) The way the concerts are performed.
5) The way open reel tapes, 78 rpm, EP, LP records, audio cassettes, video cassettes, CD’s, DVD’s, MP3 etc helped in preservation and propagation of carnatic music.
6) Audio editing’s influence.
7) Digital recording – audience’s craving for uninterrupted, Hi Fi quality copies.
8) Concert halls, now having good room acoustics etc.

1.11 **Limitations**
This research is limited to the development of carnatic music due to the influence of electronic media, pertaining to:

1. The change in the concert pattern and the evolving of the new style.
2. The change in the teaching of carnatic music – slow disappearance of Guru Kula system and evolving of tapes as teaching aides.
3. Change in appreciating and listening to Carnatic music.
4. The introduction of background music to carnatic music programs brought out in cassette form - the influence of films and vice versa.
5. Faster pieces taking more importance than slow ones.

1.12 **RESEARCH DESIGN**

The design of the research was two-folded. First, interviews were taken from performing musicians above 70 years of age who have witnessed this transition and connoisseurs of music who gave their own ideas on the positive and negative aspects of the electronic media. Next, experts in the electronic media also were interviewed.

Also for the contact mikes and the electronically aided modern instruments, comparative recordings were taken and connoisseurs were asked to differentiate & comment on the two. This design was only to obtain the connoisseur’s opinion as to whether too much use of electronic media is good or not. Regarding their use for archiving for posterity, various methods used will be reviewed and we will try to arrive at an optimal method which helps archiving with the least distortion. For the chapter regarding the effect of films on Carnatic music, music from films having a clear Carnatic music base were compared with the original version, and interviews with musicians & connoisseurs were taken & compared.

1.13 **SOURCE & TOOLS**

The sources were recordings of old concerts, modern concerts, film songs etc. Since it was difficult to have a source of old concerts without the help of electronic media, interviews with persons who have listened to such concerts were taken into consideration. As to the history of electronic media, the ocean that is the internet was widely used.
1.14 **Sampling**

The sampling for the interviews was random. It was decided to interview very conservative persons, modern persons willing to accept change, males, females, persons from different schools of thought etc. Since everyone cannot be interviewed, this sample was assumed to be representing that particular group.