SURVEY AND ANALYSIS WITH QUESTIONNAIRES
Music in particular and the arts in general put tasks in front of technology and technology puts opportunities in front of artists. Two technologies that are fairly old in helping music: dissemination (including broadcast and recording) and amplified live sound.

Considering the important role played by the Gurus, Rasikas, Performing Artists and Audio Engineers in the development of carnatic music after the introduction of electronic media, it was decided to construct 4 different questionnaires aimed at these 4 different groups of people.

Considering the fact that carnatic music’s major prominence is in the 4 southern states & some in Mumbai, Delhi & abroad, it was decided to take the samples from these areas, giving enough weight for the fact that the percentage of people interested in carnatic music in the southern cities is much more.

The questions were framed in such a way that the answers mostly could be only ‘YES’ or ‘NO’. Only the audio engineers had a multiple choice question. The questionnaire was first given to some respondents and after getting their inputs, it was edited finally to its present form.

E-mails were sent to many persons. Some were approached through telephone and some were approached when they were entering concert halls. In the end we had a very good sample design with some taken from Chennai, some from Bangalore, some from Coimbatore, some from Madurai, some from Tirupathi, some from Vishakapatnam, some from Hyderabad, some from Trivandrum, some from Cochin, some from Palakkad, some from Mumbai, some from Delhi & some from USA, a few from UK etc.

The answers were tabulated on Excel sheets. All the questionnaires had the place for the respondent to fill their name, age, address, e-mail & telephone number. Many did not fill everything but the name, but since there was a person
around collecting forms, the age approximately was entered and the city these questionnaires were given out & collected. This was actually considered enough input necessary for the survey.

The four questionnaires that were distributed among the carnatic music fraternity with the last portion – name, age, comments etc incorporated in every page, are attached as Appendices.

6.1 Analysis

The entire conclusion in this chapter is made on the analysis conducted about the rasikas of carnatic music, performing artists, gurus and the audio engineers in South India and other major cities like Mumbai & Delhi and a few abroad, where the population who appreciate carnatic music reside. The objective to find out from the personal views of people whether Electronic Media(microphones, public address systems, recording equipment etc.) has had a positive influence in the development of carnatic music or not.

The plan was to look at this issue from four major angles. The rasikas, who are the ones keen about the audio quality of music they hear. The performers who are equally keen about the audio quality being delivered and also the comfort they will have in camouflaging the minor aberrations with and without the mikes.

The sample size of the entire project consisted initially of 1800 persons. Of these only 232 persons were able to answer the questionnaires – for various reasons like they had not heard mike-less concerts, they had not given mike-less concerts, they were not interested in answering, they had not recorded carnatic concerts etc. This group was further divided into the 4 categories:

- Rasikas
- Gurus
• Performing Musicians
• Audio Engineers

All these persons were either interviewed personally by me or the volunteers. Some were asked to fill in the questionnaire whenever they attended a concert in one of the sabhas or through telephone when the respondents indicated a preference for it. This was done over a period of six months from July 2010 to Jan 2011.

6.1.1 Rasikas
During this time, a total of more than 1500 persons interested in carnatic music were approached. Some did not want to be bothered. Some, to whom the questionnaire was given, did not bother to return it. As many as 850 persons who attended the concerts answered ‘NO’ to the first question in Rasika questionnaire, while 110 answered ‘YES’. Since we could ask the other questions only if the answer to the first Q was “Yes”, we continued with just those 110 rasikas.

The questionnaires were prepared considering various aspects involved in listening to concerts with and without mikes. They were prepared in consultation with the guides, other experts in the field etc.

Most of the respondents we approached for rasikas were senior citizens because we felt they would have had a better chance to have heard mike-less concerts.

As we could see from the 850 odd respondents who said they have not heard a mike-less concert, but were happy to attend live concerts, these persons have heard concerts only with mikes and were happy about it. Now, this means 87.05% of the people questioned have not heard concerts without a mike. Since obviously they have no idea how a concert without mike will sound, and they are rasikas attending live concerts, this means they are happy with the usage of
microphones & PA systems in carnatic concerts. They were not the ones to complain about electronic media spoiling carnatic music. Since this research itself was due to the fact that many seasoned rasikas & performers were lamenting about the fact that electronic media was a great detriment to the development of carnatic music, we decided to include them in the large spectrum, which made the percentage persons who had heard mike-less concerts just about 12.95% of the rasikas who were happy about attending concerts with mikes.

The first question “Have you heard mike-less concerts?” was asked to more than 1500 respondents by the interviewees. As many as 850 respondents were asked this question and only about 110 answered “Yes”. Now, out of the remaining 12.05% of the rasikas questioned, we did the analysis. It was found that 2nd and 3rd questions were more or less clubbed together for answers. Either both were ‘yes’ or both were ‘no’.

The first situation meant it was a closed hall, for a small audience (40 – 45%), artists usually seated on the floor(25%), but sometimes on a small dais(20%), audience seated on the floor(97% - this meant, for all situations audience were seated on the floor), with less that 10 ft separating them from the artists(51%).

For this situation, mostly (47% of the total, but almost all for the closed hall, small audience) the mridangam was not loud but the first few rows felt it was loud by comparison, and the artist’s nuances were heard by about 53% and the instrumentalist’s were not heard (only 16% heard this) and when we questioned this group further, we found they were seated in the front row.

Considering the fact that the vocalists of those days had a booming voice – they in fact were expected to practice & perfect it so that they can really throw their voice to reach the last row in the audience – this meant that the loud vocalist in
a small closed hall with a small audience (not too many rows) was able to show case his/her expertise including soft nuances to the audience. But the accompanying instrumentalists were not that clear in the nuances department.

The second situation meant that it was an open area(59%), large audience(53%), artists seated on a raised dais(53%), the audience seated more than 10 ft away – almost all – a very obvious situation where only the loud portions of the concert could be heard clearly by at least the front rows, but the nuances were just not heard.

The mridangist, in order to be heard by all, was mostly (47%) loud, drowning soft accompaniments & the soft nuances of the main artist in the bargain. The percentage of rasikas who in this situation couldn’t hear nuances was 44% of the 53-59% - almost 80-85% - is really high, proving that nuances were totally missed out without mikes.

There were some mridangists who realized the need to play softly, (52% were not loud, but sometimes this meant that the rasikas were seated in the back row) but this in no way made the vocalists’ nuances heard because the first row was at least 10 ft away and there was no microphone. At best, the concert sounded a little more balanced.

The 11th & 12th questions were regarding instrumentalists and the answers prove that mostly (92-98%) the situation was the same as for vocalists.

Now we come to the 13th Q and the set that corresponds to that context. Most (98%) have heard the same artist with mike. Out of this, (36 %) have heard the same artist in an acoustically treated hall, with good PA systems. 84% felt that they liked the sound quality produced. 88% were able to hear the nuances produced. And a clear 94% were able to hear the softer upa pakkavadhyams.
Q 21 is a very important one. Out of the 100 odd respondents, 99% felt that microphone & good public address systems greatly helped in improved listening quality. When one considers that already 87.05% of the respondents were happy with electronic media, and we add this 99 % of the remaining 12.95%, we get a very high percentage of the respondents who feel that microphone & good public address systems are a boon to good listening quality.

Q22 - 99% have heard the same artists in LP/EP/AIR/TV. And according to Q 23, 89 % feel that the studio recordings add to the listening quality. There can be no studio quality recordings without the electronic media & hence these feel that audio recording has been a boon to carnatic music.

Q 24 is about the musical quality of the artist. While some artists, who got away with tiny mistakes in the mike-less era are now under criticism for not being perfect, the artists who couldn’t throw their voices and were not favored earlier only because of this reason, rejoice in the fact that their musical quality – intricate nuances – can be rightly enhanced by the help of electronic media. 72% felt that this was right.

Q25 is all about manodharma. In a studio recording, when the artist has to sing for a time frame, he/she has to practice to perfect the time. Though one can argue that to get a good music, the artist will use manodharma and then tweak that music to fit into the time frame, what we mean by manodharma here is that instantaneous spurt that comes out of the artist that makes the music so very creative. It is obvious that this cannot happen unless the artist is totally relaxed & fully into the music. But when one has this ‘time limit’ in the back of one’s mind, it is difficult to be totally free & creative. To a small extent manodharma is hindered but good musicians, when they get used to recording in studios are able to overcome this after some time so that it really does not matter. 35% felt that manodharma is hindered.
Q26 regarding short concerts actually does not have anything to do with electronic media except that the very concept came into being after their introduction. Like they say, it is easy to give an hour’s lecture but very tough to give a 10 minute speech, it is easy to showcase one’s full talent when one have enough time – enough time can be devoted to expose the versatility. But when the given time is short, it needs the expertise of a genius to pack the concert just so that the audience is well informed about the capability of the artists. Only 28% felt that short concerts cannot show the true quality of a musician.

Answers to Q27 clearly show that there are still a good percentage of people, willing to take time off to attend live concerts. 99% people feel that CDs in a home theater cannot replace the live concert. While the number of times one went to a live concert was more in the absence of quality cassettes & CDs, home theater etc., rasikas still liked to enjoy the ambience of a live concert whenever time permitted them to.

Q28 deals mainly with the way the microphones are used in many cases, by unskilled persons who have had no training in microphone technology. In these cases, the placement of microphones and speakers are without any method that the instruments sound unnatural and tinny. When these persons handle the mixer, the balance is so bad that the whole concert sounds unreal. Only experienced sound engineers who are also ardent rasikas feel this way. This can obviously be seen by the response of the very few, but knowledgeable rasikas, who feel that the electronic aids in the hands of untrained persons are really harmful for carnatic music concerts. But as 82% feel, in the hands of good skilled personnel, electronic aids do not result in unnatural tones & balance of sound.
Coming to the last question, Q29, without any hesitation, 98% of the respondents felt that the electronic media is a boon to carnatic music – which of course is the main reason for this research. This proves that all the respondents feel that electronic media has had a positive influence in the development of carnatic music. Since the sample chosen is really random, the statement is justified.

### 6.1.2 GURUS

About 60 gurus were questioned by the researcher and her volunteers. Care was taken so that some senior as well as many medium level gurus were chosen so that an appropriate sample was selected. 52 gurus responded to the questionnaire.

Most of the very senior gurus do not use a recorder in class. The modern younger gurus do find the recording medium useful. It was found that 87% gurus use a recorder for teaching carnatic music. Only 13% do not find them useful.

But only a small 12% record the complete class. Most (88%) do not find this necessary and record the full song just once, sung by the guru.

When asked if they would record the class for difficult areas, some 75% said that they record some difficult portions as a class if necessary. But 17% do not record portions of class and 8% did not reply.

Q5 was to find out whether the gurus have the practice of asking the shishyaas to sing, record and compare that with the recording in guru’s voice. Surprisingly 60% gurus do this as part of the teaching. But only about 35% find that their students are able to pinpoint their mistakes and rectify them using this technique. Among the gurus who use this technique, more than half use this as a home work and a third use this in class.
A very small 19% ask the students to practice with a taped pakkavadyam and on questioning further these were senior students. But in general a taped pakkavadyam was not used in class (77%).

Asked whether they were willing to use computer software that could compare the teacher’s and student’s rendering as a teaching aid, if made available, a good 86% answered that they were willing to do so.

Almost all the gurus – 98% - felt that electronic media was a boon to carnatic music. Just about 2% did not reply.

### 6.1.3 Performing Artists

The questionnaire was sent to more than 200 performing artists. About 120 responded, but only 40 among them had performed without mike. But this did consist of different types of performers – old, new, experienced, not so famous, etc. since the other questions will not be valid if they had not performed without mikes, we used these 40 as the sample. This also means that about two-thirds of the respondents had performed only with mikes and were happy with it.

The first question was the criteria to be included in the sample and hence all 40 had performed without mikes.

The second Q have you performed with mike in the same venue gave an astonishing 95% ‘YES’. On further questioning, these venues proved to be sabhas where due to electricity failure etc, they had performed without mikes. Also some seniors had performed in the same venue long back.

The 3rd and the 4th questions – whether the concerts using mikes were better in sound quality and whether this was because everyone could hear irrespective of their seating position, the answer was a definite 100% ‘YES’.
Many artists feel that the person handling the mikes, mixer etc are unskilled and unnecessarily play with the controls, resulting in sudden volume spurts, distortion etc. this opinion was visible with the 13% performers who felt that the engineer did not balance the sound properly. For the 5th question, about 84% felt that each mike output was balanced well enough so that no one drowned each other.

The 6th question was to be answered only if they had answered ‘NO’ to the 3rd question. While 100% answered ‘YES’ to that, instead of 0% answering, 3% answered ‘NO’ – everyone in the audience did not hear the concert well. On further questioning, it was found that some rasikas sitting just behind the speakers couldn’t hear clearly. This again is because of the positioning of the mikes.

The 7th Q – whether pakkavadyam sound was well controlled by artists gave a 100% ‘YES’ though some commented that this could be more due to the sound engineer’s balancing than the artists’ self control.

The 8th question requested them to consider whether the poor PA system could be considered one of the reasons some considered mike-less concerts better. 54% felt this was true. 33% did not reply as they thought that since they had answered that concerts using mikes were better this Q was not applicable.

The 9th Q was also similar and hence 33% did not answer. But 54% who considered this as a hypothetical Q answered that the reason one could consider mike-less concerts better was because the audio man was unskilled and spoilt the concert.

All 100% use the electronic tanpura & answered ‘YES’ to the 10th Q. They also felt that given its advantage in the portability area, its quality was good enough (100%).
A good 87% artists record their concerts and listen to them critically later. And out of these 84% felt that this helped them improve their music.

Now we took another aspect for questioning – whether the availability of music at home and busy life was the reason for the introduction of short concerts. 92% felt that this was right. But all the 100% respondents felt that there is still an audience ready to come and hear live concerts. But in spite of this, 67% felt that their music will gain popularity and will be propagated through CDs and MP3s rather than their live concerts.

All 100% felt that the internet downloads of music through various channels has helped learners of carnatic music. And they are all very sure that better quality acoustics give way to better listening quality. Most of the respondents (97%) felt that the internet has popularized their music. And finally, all 100% felt that electronic media has helped in carnatic music’s progress.

6.1.4 Audio Engineers

Questionnaire was sent to more than 50 audio engineers who were familiar with a carnatic music recording. The questions were mainly meant to find out if the contact mikes are an improvement in sound quality, what is the best form of preserving recorded music etc. Some 30 engineers responded with answers.

Out of these, 93% recommend the use of contact mikes for stringed instruments. 83% of the respondents felt that the sound quality when compared to non-contact mikes is fairly good – very much acceptable.

A very good 67% felt that the acoustic quality of the resonator still is evident even in the presence of contact mikes and the resonator is not a waste. Actually 80% of the respondents felt that the sound quality was better with the contact mike over a resonator than over a solid body.
But for the 5th question – whether improved pickups are solving the tinny sound problem, the respondents seem to be equally divided. 43% feel the tinny quality still persists, but 57% feel the latest contact mikes do not give this problem.

Very surprisingly & sadly 93% engineers felt that the average PA systems one sees everywhere is of poor quality. They feel that it is difficult to get a reasonably distortion free sound output from these PA systems. Only highly priced studio systems can help in minimizing distortion. But this is clear to anyone who attends different programs where microphones & PA systems are used. Most of the time, the sound quality is very bad.

Now, we come to the case of archiving music for posterity. 100% - all the respondents felt digital recording is the best form of recording for archiving music. Of these, 73% felt that an external hard disk is the best medium to store the music. 27% felt MP3 diskettes were a good enough for storing.

The last question had all 100% respondents answer in the affirmative that recording media has indeed very much helped the development of carnatic music over the past decades.

6.1.5 **FILM EXPERTS**

Carnatic music has definitely been influenced by film music and vice versa. To find out more on this, a questionnaire with ten questions was prepared and sent to music directors, composers. Of the sixty persons to whom it was sent, 20 responded and here is the analysis.

The very first question ‘Do you use carnatic ragas based music in your films?’ got a ‘NO’ from 35%, meaning that 65% of the composers used carnatic ragas based music in their films.
For the 2nd question, the respondents are pretty evenly divided in their views – 45% use pure ragas while 55% do not use the pure form of carnatic music, while composing music for their films. About 55% of the composers lighten the raga to suit the film’s requirements while 45% do not find the need for this.

Asked about their opinion on the audience enjoying carnatic music based songs, a whopping 85% felt that they do, giving credit to the popular theory that the melody of carnatic music can be enjoyed by all, irrespective of the knowledge level of the audience.

Compared to the number of film songs in south India and the number of carnatic based film songs, there are very few actual carnatic kruthis used in films. The respondents answer to question 5 ‘Have you used a lighter version of carnatic kruthis in your films?’ also is in similar lines – 80% have not used a carnatic kruthi – even a lighter version in their films.

Carnatic music generally is very simple, with only a few pakkavadhyams. So to use too many instruments in such a song will sound funny. Understanding this perfectly, 80% of the respondents said an emphatic ‘NO’ when asked ‘Do you use extensive background scoring for carnatic based songs?’

Most of the composers and film music directors have a good understanding of carnatic music even if they are not trained in it. And, looking at the success of the films, they are in a good position to answer the 7th question ‘Do you feel that audience is able to enjoy carnatic music better after listening to popular carnatic music based film songs?’ and 90% gave an immediate ‘YES’ to it.

Though in olden days carnatic music dominated films, till about a decade back, it was finding less and less use in film songs. But with the films like margazhi ragam, kandukonden kandukonden and morning raga the scenario has changed, and the answer to the question ‘Compared to the early days of cinema, is the use
of carnatic music in films declining?’ depicts this change. 85% say that carnatic music usage in films is not declining.

In the olden days, the basic requirement for an actor was to be able to sing carnatic music. But now, many playback singers are not trained carnatic musicians. But there are people like Unnikrishnan, Hariharan, Janaki, Vani Jayaram, Yesudas, Nithyashree etc who are basically carnatic musicians, who have entered the film playback line too. So this question ‘Do you feel that the singer has to have a foundation in carnatic music to sing carnatic music based film songs well?’ was thought necessary. While a good 65% felt that carnatic music background was necessary, there were this 35% group who felt that a good carnatic base is not a must to sing carnatic based songs. If the singer is good, without understanding the fundamentals, he/she can deliver with practice.

As the final question (in all these questionnaires it was some thing similar to this), ‘Do you feel the cinema media has had a lot of positive effects on Carnatic music?’ was posed to these film experts, and a very good 95% felt that indeed, cinema with its background scoring and multi track recording and playback singing had had a very positive effect on carnatic music.

6.2 COMBINED ANALYSIS

When we look at the combined analysis, almost all (excepting for a mere 3% in one group) felt that the electronic media has helped the development of carnatic music. The problems facing the introduction of media are only due to human error and not the equipment.