Folk Music in India Goes Digital

Neha Kumar School of Information UC Berkeley Berkeley, CA 94720 neha@ischool.berkeley.edu Gopal Singh Self-Employed Bikaner, Rajasthan gopalbkn1@gmail.com Tapan Parikh School of Information UC Berkeley Berkeley, CA 94720 parikh@berkeley.edu

ABSTRACT

Folk music forms in India are rich and diverse, varying from region to region across the Indian landscape. The recent explosion of new media technologies (e.g. DVDs, CDs, mobile phones) in both rural and urban India is changing how oral folk music is being performed, produced, distributed, and shared. To further understand this impact, we conducted an extended field study across four field sites in India that are rich in folk music tradition and activity. Through a process of interviews, participant observation, focus group discussion, and content analysis with a varied group of stakeholders - including folk musicians, listeners, retailers, and radio show producers we found that 1) there are a diverse set of motivations for performing and listening to folk music, 2) new media technologies are helping folk musicians become more popular, while reducing some streams of revenue, particularly for businesses engaged only in music production and distribution, and 3) as expected, piracy is widely tolerated by musicians, both out of apathy, and an interest in reaching new audiences with their message, while increasing their own fame and associated patronage. Based on these findings, we propose some implications for the design of an appropriate folk music sharing and distribution service that addresses these various motivations of the musicians and listeners.

Author Keywords

ICTD, Entertainment, Media, Sharing, Folk Music, Copyright, Piracy

ACM Classification Keywords

H5.m. Information interfaces and presentation (e.g., HCI):

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Miscellaneous.

General Terms

Human Factors

INTRODUCTION

Folk music forms in India are rich and diverse, varying from region to region and even district to district across the Indian landscape. Oral folk traditions have been passed down for generations and have served many purposes in the lives of villagers. Greene writes of village music in the Indian state of Tamil Nadu:

"...villagers sing folksongs on numerous occasions and for many purposes. Women and men working in the fields sing worksongs to take their minds off of their arduous labor. At the end of the day, men gather at tea shops and sing epic ballads or other songs for entertainment. [...] Villagers feel free to change the words to reflect the concerns of their particular village, local village deities, and also personal concerns [14]."

The relevance of folk music in the rural context, where it is mostly practiced, goes beyond entertainment alone. Studies on folk media in the developing world (and India in particular) show that folk music is frequently used in mass awareness and publicity campaigns [12][26]. Local fairs, puppet shows, street theatre, songs and ballads are used in support of local development schemes for generating health and political awareness [21][28][30]. Folk media plays a key role towards increasing social awareness of important developmental issues. According to a Food and Agricultural Organization (FAO) study on folk and traditional media for rural development:

"If we are to properly communicate with rural communities, we must learn more about and better understand how to channel our development work through those communities' traditional communication channels [27]."

The recent explosion of new media technologies (e.g. DVDs, CDs, mobile phones) in rural and urban India is changing how oral folk music is being performed, produced, distributed, and shared. To understand the impact of these trends, we conducted an extended field study across four field sites in India that are rich in folk music

tradition and activity. Through a process of interviews, participant observation, focus group discussion, content analysis with a varied group of stakeholders – including folk musicians, listeners, retailers, and radio show producers – we find that 1) there are a diverse set of motivations for performing and listening to folk music, 2) new media technologies are helping folk musicians become more popular and reach new audiences, while also reducing some streams of revenue, particularly for businesses engaged only in music production and distribution, and 3) as expected, piracy is widely tolerated by musicians, both out of apathy and an interest in reaching new audiences, thereby increasing the reach of their message, and their own fame and associated patronage.

The rest of this paper is organized as follows. The next section provides some necessary background information, while summarizing the prior research results most relevant to our study. The following section describes our research methodology, including a description of the four field sites that we visited. The next three sections summarize our main findings, including 1) the motivations for listening to and performing folk music, 2) the impact of new media technologies on the performance, production, sharing and distribution of folk music, and 3) the impact of widespread piracy. The next section provides some implications for the design of an appropriate music sharing and distribution service motivated by these findings, followed by our conclusions.

BACKGROUND AND RELATED WORK

Before recording technology was available in rural India, music was performed and listened to primarily in live concert settings. The trend towards new media adoption in rural India began with the widespread use of audio cassettes approximately 25 years ago, when most people were first able to listen to music at will [24].

Johnson's study [18] explores the social environment of village life and the role that television plays in the ever-changing landscape of rural India, looking at the lives of villagers and their evolving relationship with TV, and the role of television in the dynamics of social change.

"Though television began in India as a limited developmental tool with programming orchestrated by the government, the medium today has blossomed into one of the largest competitive entertainment industries in the world. Villagers are not simple peasants passively waiting to be manipulated and prodded into action by their government, but are active members of a vibrant society using the media for their own advantage."

Among other studies on mass media and how it impacts folk arts in rural India, Sharma has studied how television, VCDs, and audio cassettes have impacted the *Nautanki* folk theater art form, concluding that both continue to coexist, and the popularity of *Nautanki* remains unaffected, though

its content has evolved over time, especially because of its relevance to the contemporary rural context [36].

Especially within the last 5-10 years, new media technologies such as DVDs, CDs, and mobile phones have gained considerable popularity in rural areas, offering many people in villages a personal device that they can use to listen to their choice of content. Even many low-end phones have FM radio, audio players, and recorders. Among other changes, this has allowed folk musicians to reach out to wider and more geographically-distributed audiences [22]. This transition to digital media has been facilitated by the mobile phone. As Bellman says [3]:

"In the furthest reaches of India's rural heartland, the cellphone is bringing something that television, radio and even newspapers couldn't deliver: Instant access to music, information, entertainment, news and even worship."

Smyth et al. [37] show in their recent paper that entertainment is a major motivating factor driving mobile media-sharing in urban India. Our findings are in line with theirs on content access and distribution, although they study urban low-income users while we explore the rural space, in addition to discussing the practice of content generation. Frohlich et al.'s [38] paper on mobile digital storytelling emphasizes the importance of user-generated content and text-free interfaces. Our findings support this emphasis on user-generated content, as we discover the widespread access to locally produced mobile media.

Several research efforts in the emerging field of Information and Communication Technology and Decelopment (ICTD) have investigated how the introduction of various new media technologies have affected education, health care, agriculture, entertainment in India. Kam et al. explore the potential of mobile learning in the lives of underprivileged children in rural India [20]. Ramachandran et al. study how mobile video messages can impart beneficial health information in India [34]. Patel et al. [31] and Gandhi et al. [11] look at the potential of audio and video technologies, respectively, for providing farmers in rural India with timely and relevant agricultural advice.

METHODOLOGY

This paper presents the results and analysis of a set of formal and informal semi-structured interviews, sessions of participant observation, group discussion, as well as recorded feedback sessions from four sites in India. All data collection was conducted between December 2009 and August 2010.

The sites we studied and the qualitative methods we used are detailed below. These sites were selected not only because they have traditionally been (and continue to be) rich in folk music culture, but also because they are experiencing rapid adoption of new media technologies (along with the rest of India).

Field Sites

The sites below were chosen because they housed active folk music communities where the music is listened to and shared on a frequent basis, and live performances are regularly held and widely attended. The study participants included folk musicians, community members who actively listen to local folk forms, and the local retailers of this music.

Malwa (Madhya Pradesh)

Malwa is a region in the west of Madhya Pradesh (with a population of almost 19 million in 2001 [6]) that has traditionally been known for its rich folk culture. The site we focused on for our study includes the small town of Maksi and the village Luniyakhedi which borders Maksi. One of the best-known folk musicians of Malwa lives in Luniyakhedi, which makes this village a frequent venue for performances large and small [22]. The community here is primarily agricultural. Literacy rates hover around 40% [6]. Recent ICT penetration is significant, with almost every household owning at least one mobile phone.

In Malwa we conducted interviews with 6 musicians, in addition to conversing with 20-25 local residents of Luniyakhedi and neighboring villages. We also explored the commercial market areas of Maksi and interviewed 10-12 shop owners who were involved in the production and sales of folk music (along with other popular music). Our subjects were mostly literate with 6-8 years of schooling, although others ranged from being illiterate (some of the local residents) to being a middle-school teacher (one of the artists).



Figure 1: A folk artist with his family in a village near Bikaner.

Bikaner (Rajasthan)

Bikaner is a small district in the north-west of Rajasthan with a wide listenership of folk music. Festivals with folk performances and concerts are regularly held here and in neighboring villages, and are well attended. There is an increasing trend towards using digital media for listening to and sharing music.

In Bikaner, we interviewed 4 local musicians, some of who lived in the town of Bikaner, while the others lived in a village called Pugal about 40 km from Bikaner. We also spoke with 20-25 active listeners of folk music (these were from Bikaner as well as neighboring villages such as Pugal), and 3-4 distributors (all at Bikaner) who have been involved in the sales of folk music — many of them transitioning all the way from selling audio cassettes to using current digital technologies.

Gurgaon (Haryana)

The demographics of Gurgaon are starkly different from those of the Malwa region and Bikaner. It is more urban, due to its close proximity to New Delhi. As such, it has a large low-income migrant worker population that actively listens to folk music, including several local folk musicians who regularly perform here. In Gurgaon, we worked with the *Gurgaon ki Awaaz* [15] community radio initiative that began in 2009 and is actively involved in seeking out and recording local musicians, and soliciting regular feedback from its listenership.

The data we collected here includes informal interviews and focus group discussions with 6-8 members of staff and local volunteers at the radio station, as well as 10 listeners and 6 musicians. It also includes analysis of recordings of prior feedback sessions with (approximately sixty) listeners over the previous year.

Most of the radio station's listeners are semi-literate and local Haryanvi residents, but many migrant workers also call in regularly to request songs and/or provide feedback. The occupations of the callers ranged from farming to carpentry, tailoring, driving taxis, and other odd jobs.

Bundelkhand (Uttar Pradesh & Madhya Pradesh)

In the Bundelkhand region, which runs across the border of Uttar Pradesh and Madhya Pradesh states, we visited *Radio Bundelkhand*. This is a community radio initiative that began in 2008 and now caters to approximately 120,000 people across 120 villages [33]. Like *Gurgaon ki Awaaz*, the staff here is intimately connected with the local community, conducts frequent field visits, and has encouraged the growth of folk music and musicians in this region by catering to the musical interests of the local community.

Here we conducted informal interviews and discussions with the entire staff of 14-15 people, observed recordings of 3-4 folk performances as conducted by them, and also interviewed 3 local musicians.

Qualitative Methods

Several factors dictated the use of methods, including the geographic setting, level of access and comfort with the community, and the nature of the musical practices. There was a continual need to improvise on the modes of data collection based on the availability and accessibility of subjects and other resources, as well as the existing

infrastructure for sharing music. Different methods worked for different sites. At the community radio station sites, it was more beneficial to hold interviews at the radio station itself because this allowed us to sample a range of musicians and listeners, notwithstanding the large geographical spread of these participants. At the other sites, the interviews were based on personal contacts of local musicians, who in turn were contacted via our several partner organizations. One-on-one interviews were possible in certain contexts. In other places, informal group discussions were conducted.

Data Analysis

The data we collected was in the form of audio recordings and written field notes. All interviews and discussions were conducted in Hindi (both the first and second authors are fluent in Hindi). We then transcribed these recordings and translated them to English. Due to the mix of methods, sites, and participants, we ran our data through several passes of coding, repeatedly consolidating to arrive at the findings we present in this paper. Our aim was to follow a grounded theory approach, as advocated by Glaser & Strauss [39].

Our focus was on observing and understanding the themes at play within the realm of folk music listening and sharing practices. By iteratively analyzing our data, three main questions of interest emerged for consideration:

- (i) What are various motivations underlying the sharing and listening of folk music within these communities?
- (ii) How are new media technologies influencing these practices and supporting these motivations?
- (iii) How do considerations of piracy interact with these changes?

These questions guided subsequent data analysis, and the resulting findings are elaborated upon in the following sections.

MOTIVATIONS AND BENEFITS

In order to understand the listening and sharing practices within the folk music communities in each of these sites, we first focused on the underlying motivations for and benefits obtained from listening to this music. Why do people listen to this music? What do they think they have gained from it? Did our participants only listen to it for entertainment? Did it also serve as informal education – either in the form of spiritual guidance or by inspiring a more socially conscious conduct? The answers we received to these questions are summarized below.

Entertainment

We observed in our study that entertainment plays a key role in folk media sharing in rural India. This is in line with Smyth et al.'s findings in urban India [37]. Folk music is one of the major local and accessible sources of entertainment, and families spend significant portions of their time listening to or performing it. A participant from Malwa claimed that in every local household, entire families watched folk music VCDs/DVDs for at least 1.5 hours every evening. In Gurgaon, a local tailor shared that he listened to folk music on community radio from morning to night – either on his radio at home, or on his mobile phone through his work hours. *Radio Bundelkhand* even designed a local version of a popular talent-hunt show, called *Bundeli Idol* – seeking to identify upcoming folk musicians in the region – which generated considerable public interest [7].

Spiritual Education

Folk songs have varying flavors across the Indian landscape. In the performances we observed at Malwa, almost all songs had a significant spiritual bent. Along with singing, musicians were equally engaged in sharing with the audience the spiritual lessons they had gleaned from these songs. Within the smaller concerts we observed (satsangs [22]), the audience was often engaged in two-way discussions on these topics. In Malwa, one of the locally revered folk musicians we interviewed shared that, over time, these discussions were "most certainly" successful in bringing about positive change in the character and mindset of the listener. Another musician from Malwa shared his experience of working with the Kanjar caste, an ostracized community infamous for its crime rate [35]. According to this musician, in the months that he practiced and taught music around them, the spiritual content of the music led the people of this caste to gradually adopt a more peacefilled and harmonious approach towards life.

"In 1991, I worked with the *Kanjar* folk, who are known to have a high crime rate. There we did many *satsangs* and I felt that the music brought about a positive change (*parivartan*) in them. Those who brought themselves in the company of this music, they quit smoking, drinking and of course, robbery. My goal was to sing songs that would coerce them to think for themselves, not to preach any kind of conduct... this brought about a change in about 40% of their community of 15-20,000."

Communal and Regional Harmony

In Pugal, a village near Bikaner, we interviewed a family of locally well-known folk musicians. They said that in their village, Hindus and Muslims had never had problems with each other, because the local music traditions that were secular in nature had brought these communities closer together. One of the artists in the family shared:

"Before the rains came, the Hindus and the Muslims in the village came together to hold *satsangs* in the local temple. Everyone gets together."

In Gurgaon, the local (Haryanvi) dwellers were initially resistant towards the community radio station airing music from other regions (e.g. Bihar, Rajasthan, Gujarat) because migrant workers came from these regions and requested the

music from these traditions. This led to several disturbed and resentful phone calls to the station's hotline. As Rajni, a member of the local staff, assured a local caller:

"Just as you like to listen to songs from your tradition, they [the migrant workers] like to listen to songs from their traditions. Just as they also listen to songs from your tradition without any complaints, you too should listen to their songs and learn to accept their different style of music."

Over time, according to the community radio staff, local Haryanvi listeners have become more accepting towards different folk traditions and, as a result, towards the migrant worker community that hails from various other Indian states.

Classroom Education

With traditionally low rates of literacy among women, efforts have been initiated to focus on the education of the girl child. In Dewas, a small town in Malwa, there is an ongoing project (across twelve schools) that uses spiritual folk music to inspire girl children to pursue their ambitions, and encourages their families to support their education. Run by two local folk musicians, the project teaches folk songs to the schoolchildren, encouraging them to discuss these teachings and ask questions. The project also aims to create a syllabus using folk songs that inspires children to stay in school [16].

In a concert we observed in Luniyakhedi (Malwa), a local artist (who was also hosting the event) sang songs, gave an inspiring speech to the girl children in the audience, and invited other women in the audience to impress upon the girls and their families the importance of education. In our interview with him, he also explained that although he would have liked to devote himself to his music, teaching brought him fulfillment because it allowed him to work with and inspire girl children (he teaches at a girls' school) - who were at an impressionable age – to study further and "make something of their lives".

Social, Cultural, and Environmental Awareness

All our interviews with up and coming folk musicians at Bundelkhand and Gurgaon revealed that the songs they sing are not just limited to oral traditions that have been passed down generations but also include new compositions with contemporary references. They are written to address local needs that are often social, environmental, agricultural, or health-related. As a Bundeli artist shared – he composes songs based on the occasions/settings where he has been asked to sing. Not only does he sing these himself, but he also composes new songs for other local Bundeli musicians who pay him Rs. 200 (\$4-5) per song.

In Gurgaon, Meghna – who runs the community radio initiative – shared that they had recently played a *ragini* (composition) that had been written by its Haryanvi artist on the theme of female infanticide. The radio station

received several feedback calls (as Meghna shared) from individuals who were moved by this piece and claimed that it had "opened their eyes".

In general, the data we collected at each of our sites showed that many musicians are keen on singing songs that can have a strong social impact, encouraging people to lead better and more socially aware lives.

USE OF NEW MEDIA

Our second question focused on the changes in folk music production and dissemination brought about by the influx of new media technologies, from the point of view of three main actors: the musicians, members of the listening community, and the local businesses who engage in the sales of this music within the rural context.

We found that the last two decades, in particular, have seen increased and widespread access to new media in the form of television, CDs, VCDs/DVDs, community radio, and mobile phones. With high penetration of these technologies, especially in some of the more developed portions of rural India, villagers have the option of listening and sharing their music in more forms and ways than ever before.

Acquiring Mobile Content

In the last 3-5 years, mobile phones have become increasingly prevalent in rural India. Just as the advent of audio cassettes further popularized folk music [24], the use of mobile phones appears to have increased listenership considerably, making folk music (as well as other music) far more accessible among villagers than before. At a folk music festival in Luniyakhedi (Malwa) that was attended by 2-3,000 people from neighboring villages, we observed hundreds of people in the audience holding their phones up high and pointing them at the stage (where 30-40 folk troupes from the Malwa region were taking turns performing from 6 pm to 4 am). This was done, as we later found, to make both audio and video recordings of the performances that could be later listened to on demand. On further questioning, we discovered that instead of the attendance at live performances going down, these recordings served as 'advertisements' for local musicians. keeping the listenership alive and growing.

To understand the mobile media use of these communities, we conducted interviews at 5 of approximately 10 mobile phone outlets in the neighboring town of Maksi. Not only do these businesses engage in the sales of mobile phones, they also often house a desktop computer that serves as a media library (of approx. 150-200 GB). A customer will often receive a full allotment of music as a perk for buying a phone, or for obtaining some other product or service.

In each of the shops we visited, we found that the shop assistants who operated the media library were about 15-20 years old, male, and had minimal technical training. They were well versed, however, in compiling various thematic assortments of media, maintaining directories of 1GB/2GB

audio and video collections, which they would download onto various phones. Charges ranged across the shops from Rs. 20 to Rs. 80 (\$0.5 to \$2) for 2GB of content. There were no clear answers received for why this wide a range existed. One of the shop assistants said, however:

"I have good knowledge of music. That is why I charge a greater price. Because quality is better."

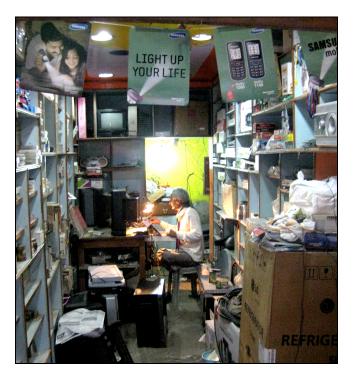


Figure 2: A shop in Maksi (Malwa) that claims to fulfill every electronic need of its customer.

Since there was no Internet access available in Maksi, we were eager to know how the shop owners obtained their media libraries. We found that all of these came via physical storage media from shops (of relatives or family friends) in either Ujjain or Indore – the two major cities in Malwa. To further augment their collections, they often uploaded the content from a customer's mobile phone onto their own computer before downloading new content. Phone owners received no compensation or consideration for this practice.

Transition to Digital Stored Media

Most of these shops were previously electrical goods or photo-printing outfits, transitioning to become mobile phone outlets in the last 3-5 years, to address a rising demand for devices and music downloads. The transition from cassettes and CDs to mobile stored content has been steady. As one of the shop owners informed us:

"We stopped keeping tapes [audio cassettes] four years ago. No one wants CDs anymore. Only mobile."

This transition to digital media was visible at other sites as well. At the community radio sites of Gurgaon and Bundelkhand, we found that the listeners frequently use their mobile phones to listen to the radio content (on speaker mode). One participant in Gurgaon shared that before the community radio station was launched, he did not have regular access to music.

"Before *Gurgaon ki Awaaz*, I did not own any CDs or audio cassettes. Now, I listen to music of my choice [folk songs] all the time [on my phone], when possible even through the night."

In Bikaner, we observed pilgrims who walk 200 KM to attend the annual Ramdevra festival – in honor of Baba Ramdev, their spiritual deity. (The festival draws a crowd of around 1-1.5 million, of which 500-600,000 choose to walk.) Nearly all of these pilgrims listen to devotional folk songs on their mobile phones as they walk (with earphones attached). More pilgrims are choosing to walk, we were told, also because they have this constant source of entertainment with them.

Decline of Audio Shops and Recording Studios

While businesses that distribute music in the form of mobile downloads have multiplied in recent years, recording studios and audio-only shops appear to be on the decline. One of the shop owners we interviewed in Bikaner, who had been in this business for many years, said:

"The market of CDs and audio cassettes has gone down by 85% in the last 3-5 years, ever since the mobile phone gained widespread use. People no longer want to listen to cassettes or CDs. They prefer mobile modes of listening."

His shop used to produce albums of folk musicians but he no longer earns a profit from this. He now rents his studio space to musicians and lets them take responsibility for their own distribution. This, however, requires an investment by the artist and has therefore not been a very successful business model thus far.

A Shared Experience

Our interviews indicated that almost every household – in each of our field sites - has one if not several mobile devices. The mobile phone acts not just as a personal listening device, but also a communal one. The desire to share musical experiences with one's friends and families was a common theme among the listeners we spoke to. One of our respondents from Gurgaon shared:

"We listen mostly in groups. There are [usually] 2-3-4 of us. Kids also listen. Adults also listen. We listen together."

When asked how they share songs with their loved ones who may be away (at the time), one of the Gurgaon respondents said that he would call his friends and tell them to turn on and listen to the radio, or else he would record the piece using the audio recorder on his mobile phone.

From Audio to Video

Many listeners we interviewed across sites shared an increasing motivation to transition from audio content alone to video as well. Be it on the small screen of their mobile phones or on their DVD players at home, listeners like to watch video recordings of the musicians. One of the Malwa folk musicians we interviewed said:

"Five years back, people were only interested in listening to music on cassettes, radio and CDs, but now people are demanding music with video. They don't buy if you don't give them songs recorded with video."

Some shop-owners work with local musicians to help them produce video recordings to address this demand.

PIRACY

A discussion about the production and distribution of music at our four sites would be incomplete without talking about piracy and how different segments of the community have responded to it.

The most straightforward and transparent approach to music distribution that we observed was at the community radio stations. The stations have low-tech recording studios of their own, and play only those songs that have been recorded there. For every recording, they sign an agreement with the musicians that, in return for allowing the musicians to record themselves live, they obtain the rights to air that recording on their station when they choose. In exchange, *Gurgaon ki Awaaz* provides the troupe of musicians with a CD of the recording that they can duplicate and share as they like.

We found that well-known and older folk musicians who could previously afford to sell their audio cassettes and CDs have lost a substantial portion of their potential earnings due to the widespread sale of pirated recordings. Lesser-known musicians do not have the notoriety or resources to obtain recordings in the first place. As a result, the folk music market is currently dominated by local individuals and businesses who use low-cost recording devices to obtain recordings from live performances and sell them at low cost to interested listeners, almost always without permission from the musicians.

We asked several folk musicians to share their views on this practice, and on piracy in general. The strongest opinion we heard against piracy was from one of the musicians in Bundelkhand who said:

"The voice should have a price."

When asked to share their views on how this practice made them feel about their music – the fact that their CDs were reproduced without their earning the revenue from the sales - the general view was one of passive acceptance. A musician from Malwa said:

"What can we do if a robber comes, steals our goods and runs away? It is not in our control."

When asked if they (the musicians) approved of the practice, they appeared convinced that it was unfair, but nevertheless, their primary interest was still in spreading the word of the great poets and saints from the folk traditions, whether or not they received remuneration for their art. As a result, many of the musicians' own opinions about piracy were ambivalent. One such artist (from Bikaner) offered a refreshingly positive outlook:

"There is no solution for piracy. You just can't stop people from copying music and law doesn't work in this case. This kind of access to music for the common man shows that *music is priceless*. Now we can listen to one thousand songs by paying just Rs. 100 [\$2]. Do you think we are paying for music? The shopkeeper is not charging for music; he is charging for the software in which he has invested."

Piracy leads to illegal but wider distribution of music and therefore also serves to extend the popularity and fame of many musicians. This could be an opportunity for increasing the remuneration for musicians through live performances— even for up and coming musicians who are not already well known. Echoing this sentiment, one Bikaner artist said:

"Singers are still on the safe side because when people record our music on their mobile devices at any live performance, it spreads like fire. People get to know about our good performance only through these devices and we get publicity as well as more shows to perform at. On the one hand, the CD and cassette business has gone down, but on the other, the demand for our live performances is rising."

In general, illegal duplication of media content ("doubling") appears to be widespread and socially accepted. Local businesses that we interviewed in Malwa and Bikaner did not offer any resistance in sharing the details of their business with us. On the contrary, they were proud of showing off their large media libraries and how they obtained them. Listeners also benefited from cheap and ubiquitous access to folk content.

IMPLICATIONS FOR DESIGN

We summarize the key design implications resulting from our study here.

Money versus and Fame

Our interviews show that it is not one or the other, but both money *and* fame that are important to folk musicians. While they would certainly like to receive remuneration for their art, they do appreciate the patronage they receive on

account of widespread (but illegal) distribution of their works.

Empowering Musicians with Technology

With the availability of low-cost and easy-to-use recording devices, the technological skills and capacity required for producing and distributing music need not be limited only to local businesses. Musicians and/or their troupes and families can be empowered to create, share, and market their own recordings. This would allow more musicians (and not just the more famous ones) to get their music into the market.

In this vein, one of the musicians we interviewed at Pugal (near Bikaner) shared his personal success story with us. Although folk music had run in his family for generations, he had performed only in his village and in Bikaner until four years ago when his talent was discovered by an outside filmmaker who produced a documentary that included his music [19]. Since then, he has had the chance to perform in several locations within India and even overseas, and earns enough from his music practice to have built a *pukka* (permanent) house and to put his children through school.

Audio and Video are Both Desirable

The influx of new media technologies such as DVDs, VCDs, and mobile phones has fueled the desire of users to partake of video as well as audio content. As a participant said, "Now we can see what we are listening to." This trend appears to please some while it makes others unhappy. An artist from Bikaner shared:

"I don't like the way folk is presented on a television screen. Folk on television does not appear *jivant* (live). It is not good to see music instead of listening with proper attention."

Musicians Need Copyright Protection

The standard copyright procedures in India are both cumbersome and expensive. As a result, for the average folk artist, this is not worth the effort. If simpler and more affordable means for protecting content and compositions are made available to musicians, they may explore this possibility. The head of one of the community radio stations that we visited brought up this issue. He showed us a printout of the Copyright Act of India from 1957 [8]:

"According to the Act, the artist has to pay Rs. 400 (\$10) for every CD¹ that he wants to copyright. That is so expensive. Why will he do that for every CD will not sell in the local market for more than Rs. 20-30 (\$0.5)?"

¹ It costs Rs. 50 to copyright a single song. Assuming there are at least 8 songs on a CD, it would take Rs. 400 to copyright a CD.

On the other hand, excessive protection and enforcement might limit the spread of folk music, limiting its spiritual reach and musicians' opportunities for patronage through live performances and other appearances. In that case, a Creative Commons type of license, which maintains attribution and provides certain relaxed protections against unauthorized profiting, might be more appropriate [9].

Managing and Appreciating Large Media Libraries

Due to the increase in piracy and low-cost distribution, the quality of music the community is listening to has also suffered. Access to a much wider variety of musicians, recordings and recording qualities may also lead to a less cultivated sense of taste and thoughtful listening. As an artist from Bikaner stated:

"Those who have 500 songs in their mobiles are constantly changing songs without paying attention to any particular song. They don't know what to listen to."

CONCLUSION

Our research study focused on the emergence of new mobile media sharing practices related to folk music in the communities of Malwa, Bundelkhand, Bikaner, and Gurgaon. Through the use of a combination of qualitative methods at each of these sites, we sought answers to three main questions:

- (i) What are various motivations underlying the sharing and listening of folk music within these communities?
- (ii) How are new media technologies influencing these practices and supporting these motivations?
- (iii) How do considerations of piracy interact with these changes?

Our findings show that 1) there are a diverse set of motivations for performing and listening to folk music, 2) new media technologies are helping folk musicians become more popular and reach new audiences, while also reducing some streams of revenue, particularly for businesses engaged only in music production and distribution, and 3) as expected, piracy is widely tolerated by musicians, both out of apathy and an interest in reaching new audiences, thereby increasing the reach of their message, and their own fame and associated patronage. Based on these findings, we propose some implications for the design of an appropriate folk music sharing and distribution service that addresses these various motivations of the musicians and listeners.

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