

# Collaborating Around Growing Media Collections in the Home

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## ABSTRACT

As people collect more and more digital music, photos, and video, the growing scale of the collection challenges how families share and collaborate around the collection. We studied the intersection between physical and digital media collections. Through 20 two hour, in home interviews, we explored the when, why, and how of the households' organization, access and sharing. We found a range of accommodations for shared collections in the home.

## Author Keywords

Media management, music sharing, personal media collections.

## ACM Classification Keywords

H.5.1 [Multimedia Information Systems]; H.5.3 [Information Interfaces and Presentation]: Collaborative Computing; J.5 [Arts and Humanities]: Music

## INTRODUCTION

Taylor began collecting CDs as a teen. At first he could only afford one CD a month, but in college he bought used CDs and his collection multiplied. Through a variety of living situations Taylor's music lived in crates shared with roommates but separate from their CDs. Now Taylor is moving in with his girlfriend. Unpacking CDs, he is torn: should he combine the collections or keep them discrete? If he combines collections how can he make it easy for both of them to find what they want?

The transition from physical media collections to digital collections will make Taylor's dilemma more acute. How people manage large and growing media collections is not well understood. Further, we know even less about how families and households manage and navigate both personal and shared music and video collections.

We are studying the intersection between physical and digital media collections, as they grow arbitrarily large. We explored media collections in the home, observing and questioning practices, motivations, and strategies. We tested organizational schemes through sets of systematic probes. We found both well-known strategies and specific accommodations people make to share personal media collections within and without the home.

## METHODOLOGY AND THE PARTICIPANTS

We conducted a qualitative, ethnographically informed, study in homes. We recruited households that had digital and physical collections of music and video and were presumably transitioning from physical to digital formats.

We conducted 20 *in situ*, open-ended, semi-structured, interviews. Two researchers were present for all of the interviews. We asked participants general questions about collecting, to give us a tour of the collection, and then to retrieve items from the collection. Interviews were recorded and transcribed. Transcripts were analyzed using a Grounded Theory approach [7]. We conducted open and axial coding to develop initial categories. Analytical memos were written to clarify themes and relationships among categories.

We screened candidates for the size and format (physical, digital, or both) of their video and music collections. Early households had small to medium sized collections and illustrated concepts known from prior research. So we turned to households with larger collections<sup>1</sup>. The remaining 15 households had collections that exceeded 500 albums and all but one had greater than 1000 albums. Many participants were unsure of exact numbers and measured things by the storage space needed in feet or gigabytes. In the households we studied, 13 of the 20 primary participants live with a significant other and/or children. In three of those homes, we spoke with the primary participant as well as a significant other.

## OBSERVATIONS AND FINDINGS

Home media collections have many different facets. We structure our findings using two frameworks. The first, Brown, et al. [2, 3, 4] propose a media lifecycle that involves learning about new media, acquiring and collecting, archiving and organizing, selecting for use, and

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<sup>1</sup> We standardized our measure of collection size in the following way. For music we define 1 album as equivalent to 10 tracks. A small collection is less than 100 albums; a medium collection is 100-500 albums, a large collection is 500-1000 albums, an extra large collection is anything over 1000 albums. For video, a small collection is less than 50 videos, medium is 50-100 videos, large is 100-500 videos, and extra large is anything over 500 videos.

sharing with others. The second, Volda, et al. [8] described a spectrum of music sharing from intimate mixed tape sharing to highly anonymous peer-to-peer sharing. Over the spectrum from intimate to anonymous we identified sharing experiences with partners, family, housemates, friends, colleagues, and strangers. In the following we use the media lifecycle to present our observations along the sharing spectrum.

### Learning About New Media

The first stage of the life cycle involves finding out about new media. People learn about new media by both passively encountering it and actively seeking it [2].

Primary participants who lived with significant others were often the manager of the collection as well as the primary contributor to the collection. Although partners may add to the collection, rarely do they add artists unknown to the main collector. The significant other, on the other hand, may use his/her partner as a source of new media.

*<P16a> is more seeking than I am, because I think, he's in my life, I just get enough exposure to things through him and that's enough for me. – P16b*

Similarly, P19 described her role as “getting stuff into rotation” and introducing her husband to new music.

Friends and colleagues were less cited as a source of new material than found in [3, 4, 5, 8]. Our participants regularly reported that they had few friends they could trust to introduce them to new music. This is likely attributable to the immensity of the collections. P9 noted that he had to seek out “experts” to have knowledgeable discussions about music, while P15 turned to a newsgroup to find people to talk to about music.

In contrast, friends were frequent sources of television and video recommendations. P12a and P12b regularly borrow DVD sets from a friend while P6 explained that friends keep he and his wife up to date on new shows. Only P18 and P19, owners of extra large video collections, complained that friends were an insufficient source of new information.

Participants with the largest collections were commonly introduced to new media through external sources or strangers – reading magazines, listening to the radio, or pivoting on ‘like’ items on Amazon, IMDB, or eMusic.

### Acquiring and Collecting Media

Prior research has considered why people acquire or collect media [2, 8]. Acquisition does not necessarily lead to collection. The item may not be considered collectible such as a copied CD, or it may not move past auditioning into the collection.

Our participants acquired media across the entire intimacy spectrum from family and friends to absolute strangers. If media was freely obtained it came from friends, record

label promotions, Peer-to-Peer sites, and by checking things out of the library and “backing them up” (P16a). P2 shared that she travels and stays with friends, ripping their CDs to her laptop. P14, who has amassed an immense collection of recordings of live performances of groups such as the Grateful Dead, told us about “Blanks and Postage;” to get a copy of the show, one gives a ‘taper’ a blank cassette and postage to return it. Our participants also reported buying media at music stores, thrift shops, garage sales, video rental places, as well as through Amazon, iTunes, and eMusic.

As in [2], our participants were concerned about the collectability of certain formats. LPs and CDs were highly valued while eight-tracks were dismissed as curiosities you might “accumulate” but not collect. Unlike [4], few contrasted the collectability of physical versus digital. It was less about the format and more about the packaging and the associated materials, such as cover art, lyrics, artist notes, and band composition. For instance, when ripping music to his digital collection, P5 prefers commercial CDs.

*...it kind of disturbs me to get Journey's Greatest Hits on a little silver thing with Sharpie writing... If I like something then I kind of want to see the whole package. I want to see what they intended. – P5*

He creatively mediates the need for cheap digital music with his desire to have the actual CD by buying the CD, ripping it, and then selling it back to a store for credit.

Another digital collector, P11, acquires everything from Peer-to-Peer, but has high standards for items. In addition to laboriously locating album art for every one of his thousands of albums, he religiously updates the metadata to ensure consistency throughout the collection. What makes an item collectible seems to be less about its tangibility and more about its completeness.

### Archiving and Organizing Media

Prior studies of how people organize their media collections suggest that behavior ranges from meticulous and systematic to chaotic and eccentric [1, 6]. We saw a similar range but found larger collections were more likely to be organized.

Participants rarely combined collections with roommates but were more inclined to integrate a significant other's collections, although not all couples had merged their collections. Sometimes there was a mixed approach. P1 and his wife have an integrated video collection but separate shelves for their music. P12a and P12b maintain separate residences and physical collections but have pooled their digital video and music collections. P14 and his family have integrated all their music except for his live performance recordings. Even in fully merged collections, the participant organizes to accommodate other members of the house. P7 and P16 have subdivided the children's videos. P10 has given his fiancée the classical collection to order as she

wants, while P21a created special sub-collections for his wife to make it easier for her to find things. When asked, “*How is the organization working for you?*” husband and wife replied,

*P21a: Me? Fine.*

*P21b: Me? I know where the ones are that I like.*

P21b is only concerned about some of the items, and her husband has set the collection up to facilitate that.

Even when a participant did not customize the organization for the other members of the home, he or she may have implemented a scheme to facilitate retrieval. P8, who describes his organization scheme as filing “*by layers of sedimentation*” does not re-file music his partner has listened to, but rather lets her put it where she can re-find it. P6 selected a scheme for use by multiple people. He decided to alphabetize the collection because “*it’s the only system that is easily communicated to other people.*” This supports the observation in [6] that the organization of a collection used by multiple people is quite fragile.

P6 also regularly hosts parties where friends are invited to pick music to play. He has separated “*sentimental*” music from the main collection because it “*would be considered noise to their decision making process.*” [8] proposed that segmentation may represent a form of impression management. While P6 admitted some self-consciousness about the collection, it was still visible to others. Impression management seems more central to sharing practices than to organizing the collection in the home.

### Selecting Media for Use

Little work has considered how people select media for use. Some suggest that people largely satisfice when looking for music and targeted item search is uncommon [1]. In contrast to settling for something at hand [2] noted that users of recorded video were more actively engaged in all aspects of the television lifecycle than those who watch broadcast television.

While satisficing plays a role in media selection, in shared living environments the primary owner often selects in consideration of the housemate(s). For instance, P6 and his wife as well as P12a and P12b commit to watching episodes of a television show together. Music selection is influenced by mood and activity [6, 1], but in shared environments it may be mood of the entire family that affects the decision. P7 explained that most mornings he picks music to play while the family gets ready for the day.

*...if it’s like we’re all just getting up for first thing, I’ll put on something ambient, quiet and pretty or maybe some very light classical to get everyone going. – P7*

He described various moods that dictate different music.

Media is often an important part of social gatherings in the home, from background music that creates a “*convivial*

*atmosphere*” (P1) to being the reason for the gathering. P20 described “*call and response*” music parties. P16a and P16b regularly host record parties where guests bring a record to play. P12a and P12b have hosted similar video showing parties. They hook up a laptop to a big screen TV so people can share their favorite videos from sites such as YouTube. P12a explained that you avoid items that people wouldn’t like or would be boring for them. She advised that there is a reciprocal protocol for watching videos that another selects. She referred to these selections as “*direct recommendations,*” which cannot be ignored. A recommendation received through email or through IM can be politely deleted, but in the context of a party, it would be rude not to watch. P14 discovered that he could exploit these protocols to easily squash an event.

*Like the jingle cats, which is all the Christmas songs being meowed. That’s how, after you have Christmas dinner, how you get your family to start moving toward the door. You put this on. – P14*

Whether it was selecting for a family member or for complete strangers, participants looked for cues to adapt selection based upon the needs of others.

### Sharing Media with Others

The last stage of the lifecycle concerns sharing media. Sharing involves offering access to a collection and to the knowledge that comes with having collected that media.

A person’s collection is a unique and comprehensive representation of the person and his or her history. About his music collection, P20 claimed, “*it’s a part of myself that I happen to keep outside of myself.*” It is not surprising then that the comfort a person feels sharing the entire collection is directly related to how intimate they are with another.

Participants reported no need to curtail partners’ access to the collection. If limits were established with family members, it involved age appropriate material for children. When sharing with friends and colleagues, only P2 removed items from her iPod to shield certain songs from friends with more “*discriminating*” tastes. Participants are clearly aware that judgments might be made and impressions formed because of the collection. P11, who shares his digital collection with his office, described an occasion when a coworker teased P11 for having Britney Spears in the collection. We asked P11 if he would limit the access to avoid that situation in the future and he explained,

*I want to keep that open environment. So to limit that would then trigger something different... a different reaction that I may not want and that would be kind of pushing them away and that’s not what I want to do. So it allows me to not be so restrictive in certain areas of my life. Ok, so it is ok to share. It’s ok to have people see a different part of me. – P11*

Participants on the whole were willing to accept that judgments were made. P20 described a collection as both “utterly private” and yet “very public.” He told us that he wants to share his collection. In [8], sharing occurred in the workplace while, with the exception of P11 and P16a, our participants rarely shared with colleagues at work.

[8] found that people felt that they should share music with which they had some ‘expertise.’ We observed similar behavior. Our participants felt obligated to share certain media. For some this behavior began by sharing with friends but grew to broadcast sharing. P6, for instance, created a music server for his friends to use at Burning Man. Later he turned this into an underground Internet radio station and started an MP3 blog.

At least five other participants cited similar obligatory feelings to share media they had collected or knowledge they’d gained while collecting. In several cases this went beyond sharing their expertise and extended to sharing something they felt others may not have access to. P14 has thousands of recorded cassettes of live performances of bands such as the Grateful Dead and Phish. For some performances he may have the only copy.

*It’s like I collected it, and now it’s my duty to see that it is transferred digitally so someone can find that show someday and go wow that’s great. – P14*

Similarly, P12a regularly downloads short videos she is afraid may be removed from YouTube or GoogleVideo so she can repost them. She also vehemently disagrees with undistributed copyright material. For example, before it was available on DVD, the documentary *Hearts of Darkness* was virtually impossible to rent or buy. She copied a VHS and posted an online version. She explained,

*I think people need to watch it ... I’m just going to do this anyway, because in the moral calculus, this is ok. – P12a*

For her, the duty she felt to bring the content to others outweighed the risk of illegally posting the video.

Characteristics of the collection affect whether someone is more inclined to share on a small level, like burning a CD for a friend, or to feel obliged to share with the world. The more unique the item, the more a collector feels a need to share outside their immediate realm of intimacy.

## CONCLUSION

Personal media collections in shared environments present many challenges for designers of digital media management software. Our observations of how families manage immense collections through all stages of the media life cycle along a spectrum of intimacy illustrate strategies that can be incorporated by designers of media management software as members of a household manage their shared collection.

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