Though most people know of unofficial live show recording in reference to the Grateful Dead and Phish, it’s been around for a really long time, and just about anyone who can be recorded has been. Dean Benedetti famously recorded 4 hours of Charlie Parker solos in March of 1947, and I’ve seen concert recordings of everyone from Joan Jett to Peter Brotzmann to Britney Spears. Phish and the Dead have such cultural prominence and such huge fanbases that just by existing as they are, they have brought the niche world of tape trading out in public, and indeed, they were my own personal entrée into the tape trading world. But they are just the tip of the Slide 1 iceberg.

This Slide 2 Pink Floyd bootleg is how I found out people recorded bands besides Phish and the Dead. Slide 3 Bootleg albums, vinyl, CD, cassette, or otherwise, were seldom recorded by someone with the plan to sell them. Usually the bootlegger got ahold of someone’s recording, pressed it, and sold it, a practice that continues to this day, and probably always will. But, how did those recordings spread to begin with? They went around through the oldest communication method, person to person. Aficionados met each other at concerts, in record stores, through friends of friends, and, for the Grateful Dead, in tape trading clubs and ads in Slide 4 Dead Relix, now Relix. Trading was a slow, analog process. Then, we got the internet and everything was upended. Recall the dizzying speed at which we blazed through tech developments for increased storage and corresponding practical file sizes in the late 1990s through the early aughts: Slide 5 CD-ROMs to CDRs to zip drives to 1 or 3 gig hard drives to hard drives measured in the tens of gigs. It was that level of transformation.

Tapes degrade in quality as the generations increase. Every time you copied a tape the quality degraded. Slide 6 That meant that the best quality you could get, short of having someone give you their master recording, was a first gen. And that, in turn, required the one
person who had the master to make every first gen themselves. Tapes took as long to copy as they did to play, so it was a time consuming and geographically dependent endeavor to get a first gen. Mail trades using a Slide 7 vine or tree structure allowed for distance, but quickly brought tapes down to 2nd or 3rd gens.

The internet did not initially change any of that. In the early dial up days and hard drives measured in the hundreds of megs, no one was transferring anything larger than a photograph online. But you could post a tape list online where anyone could see it, and that was transformative: it was no longer necessary to physically meet people or subscribe to a particular publication. Also, lower profile artists became more visible. On the internet, all you need for everyone to be able to see something is for one person to care.

At that point, shows were still being traded on cassette. In the late 1990s, CD burners weren’t cheap. Because of the expense, CDR traders were a tiny minority at first, such that I didn’t even consider the ramifications of the technology at the time. In retrospect, it was revolutionary. A CD trade meant that the show had been digitized, and a digitized show ceased degrading. Thirty years of the modern trading era counting multiple generations as a necessary evil, recordings degrading as they spread over the world—gone overnight. No matter how far down the chain you were, your copy was an identical copy. Slide 8 A digitized recording meant that everyone got the master, previously a literal impossibility. The commoners got to eat at the kings’ table, and the table was set with the food of the gods.

Nor was that the end of the changes. By the early 2000s, hard drives had increased in size by orders of magnitude, as had internet speed. It was now practical to forego physical media altogether and just store lossless audio files, though the crawling speed Slide 9 of the peer to peer sharing networks of the time meant distribution was only practical through a server/client
relationship. But that still constituted both a technological and social seismic shift. Personal connections were no longer necessary; all you needed was an ftp client and a URL, and URLs could be found via etree.org’s mailing list.

The nascent online trading scene of the late 1990s lacked a center. Enter etree. Etree started up in the summer of 1998, created by 10 people drawn from Sugarmegs and People For a Clearer Phish, which were big deal show trading sites for the Grateful Dead and Phish, respectively. A lot of etree’s front page concerns the mailing list for ftp server locations and links to free software. But the two items that actually make the largest impact are buried in the “About” section. 1) mp3s are no good for live shows. They’re lossy, we won’t use them, use Shorten. Keep in mind that this was only a year or two after mp3s had really become available to the public, and were one of the hot things on the internet. 2) physical trading is over, from now on, we download. At the time a CDR was still necessary as a final product, but only until hard drives got larger. Those are the foundational principles of modern live show trading right there: lossless audio, and computer to computer transfer. They have only grown in relevance with the switch from servers to bittorrent sites.

The digital age brought another change: information. In the analog trading days, show and recording information degraded along with the sound quality through copies, frequently leaving nothing but the track listing, date, and city. Digital got everyone whatever information was available, because it was entered once, then perfectly replicated. Etree values information, and their given structure for show components, propagates outwards, to the point that it has become standard for any show traded online anywhere: the audio files, md5 checksums, and an info file, frequently containing everything from what kind of microphones were used to make the recording to where the taper was sitting, things fanatics had long cared
about, mixing internet populism with the one voice can be broadcast far and wide principle—the resource of the masses given rules by the few obsessives.

Nor did it stop there. **Slide 16** Etree created naming standards for files and folders, and an ever growing set of band abbreviations. The naming standards grew with experience too, you can see how much they expanded from **Slide 17** basic to **Slide 18** extended, so that you can tell without even opening the folder what show and what source you’ve got. Of course, that only works if people all actually *use* it, as you can see from **Slide 19** my Neil Young shows. That’s one of the downsides to a folksonomy—you can’t guarantee that people will follow it.

In libraries, our classification systems are developed and executed by professionals precisely to prevent that kind of thing. But we need to keep in mind the fundamentally different nature of the populations being served and the systems that serve them. Library collections are centrally assembled and stored in one location, while live show recordings are gathered and, largely, contained in a decentralized system of circulation. Gary Field commented “Folder naming isn't something that we can control too much. We don't want to discourage people from sharing the shows by forcing them to comply with rules that don't effect the music.”

Compared to a book, a show’s classification is ridiculously streamlined. **Slide 20** The name of show is a description, call number, and title all at once. Our current cataloging systems record a book’s year of publication and edition statement, frequently indicating if it has been reissued, revised, etc., all important distinctions in figuring out what version we are getting of the text. Live shows are no different. No date can be two different performances, but the difference in sound between two different recordings can be vast. Library OPACs can read the data in the ILS and, with the right applications, lay out the differences between what looks like 5 copies of the same title in a way that will allow the users to understand the differences. Etree’s
classification schema, puts the difference right in the title. This maximally serves the user because these titles are ending up on personal hard drives without an interface to interpret them. Therefore, the user is served best by seeing as much information as possible right in the title. This is especially helpful if all of the shows are properly labeled and therefore lined up, as they are here, but is helpful even [Slide 21] if not. You may have to hunt through your hard drive to find all of your sources, but once you’ve found them, you know right away what you’ve got.

The closest live shows have to a proper, well-maintained library where naming standards are enforced is the Internet Archive’s [Slide 22] Live Music Archive. The first thing worth mentioning about the LMA is that it’s a testament to how far a folksonomy can go. When the Internet Archive decided to get into hosting live concert recordings, they adopted etree’s naming structure wholesale, because it really does work that well. The LMA has both advantages and disadvantages as regards resource discoverability, and understanding them once again involves keeping in mind the differences between a traditional library structure and the crowd-sourced nature of a live music collection.

As you can see [Slide 23] here, short of the tags, there’s no way to tell which source you’re dealing with without clicking through. And yet, the information is not missing. Not only is the information present in the notes of the [Slide 24] show’s page, it may be in the file name. So if that’s the case, why doesn’t the source information show on the band page? If you look at the [Slide 25] uploading form, you can see that band abbreviation and date are required as separate fields, in a particular format, while the extended information is simply an open box. As the etree extended naming format suggests but does not require various data points or even a particular order for them, there’s no way to create a standard entry form, which is part of the problem. Also, the LMA was established long ago enough that only the original naming standard was
established; that may be the only information displayable on the artist’s front page. But remember the LMA’s design and goal: it’s there to easily handle uploads from ordinary people with no library training, and the minimal necessary information makes it maximally easy.

Assembling the collection is the top priority, so it needs to be easily added to by anyone so inclined—going an extra click for source information is a small price to pay for easy uploads, and the files are still correctly labeled upon Slide 26 download.

Etree’s naming standard has a guaranteed proper usage in one other place, Slide 27 their database. Here, every source of every show is recorded, as well as all possible information, and assigned a unique identifying number. Like physical archives, numbers are assigned in order of acquisition. But since there’s nothing physical to deal with, collocating the shows by Slide 28 any of their data points is easily done.

So all of this is really neat, but it prompts a question: Slide 29 why do we care about all this? And the answer is that concert recordings are a huge, major part of popular culture and music history. Jazz artists and jam bands improvise every show. Arrangements of old songs change. Bands like Pink Floyd, Radiohead, and Television counterpoint meticulous studio craft with a much rawer, more aggressive live performance, of which there is little or no official documentation. Banter with the audience. People in the audience talking near the taper. There’s always something more to learn, and for some artists that forms a crucial part of their musical personality.

And yet, the official study of any of this is close to nil. The majority of the academy, or even music critics, have ignored it. It could be that there’s enough officially released material to keep up with already, or enough to catch up on after decades of first jazz, then rock, then hip hop, and surely something else next, not being taken seriously as legitimate objects of study. But
the fans never cared about legitimacy from the establishment. They taped the shows, they traded the shows, and they classified and cataloged the shows. With etree’s database at over 100,000 concerts and a gigantic repository using their cataloging standard, this is how it’s going to be. Everyone else will have to follow their lead. Thank you.