You Are What You Listen to

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Users of Digital Music Sharing System Judge Others by their Playlists

Co-workers sharing digital music in the workplace via Apple Computer's popular iTunes software form impressions of each other based on their musical libraries, according to a new study by human-computer interaction researchers.
Employees in a mid-sized U.S. company reported that they consciously worked to portray themselves in certain ways through the collections of music they shared with co-workers, some of whom they barely knew. Sometimes their self-portrayals were misread by co-workers with different musical interests and knowledge.

Nevertheless, music sharing served to build a community within the

workplace researchers studied. This finding has design implications for music-sharing technologies that are primarily created as individual jukeboxes, according to researchers from the Georgia Institute of Technology and Palo Alto Research Center (PARC), who will present their findings April 5 at the Computer-Human Interaction (CHI 2005) conference in Portland, Ore. The study was funded by PARC and the National Institute of Standards and Technology (NIST).

"People sharing music in our study were aware of the comings and goings of others in the office because they noticed the appearance and disappearance of others' music on the network," said Amy Voida, lead author of the paper and a Ph.D. student at Georgia Tech. "They imagined what other people might think about their music collections, and they were aware of the musical holes left when someone left the company…. What once was an individual jukebox became a music community."

Digital music sharing among people on the same local area network became possible with iTunes in 2003 when Apple added the optional feature to its dual-platform software, which was designed primarily for home users. Users can share their entire digital music libraries or selected playlists. In contrast to previous online music sharing technologies, iTunes does not support copying music over the Internet. Music files reside only on their host machine and, when shared, are streamed to another user's computer.

Prompted by news reports of college students sharing music in dormitories, Voida and her colleagues investigated whether co-workers are doing the same. The researchers interviewed 13 iTunes users in one unidentified company to get specific examples of the social aspects of music sharing.

"In the workplace, music sharing plays with the boundaries around things

you as an employee might not want to share with other employees," said Beki Grinter, a Georgia Tech associate professor of computing who was a PARC researcher when the study began. "We found that sharing your music is actually quite a strong personal statement."

The researchers' report, which is nominated for a best paper award among 350 others, is filled with vignettes that illustrate this finding. Researchers altered the artists and music genres cited to protect the anonymity of study participants.

When one user decided to share his music, he recalled: "I just went through it to see if there was not like stuff that would be like, I don't know, annoying, that I would not like people to know that I had." Sensing that his library was "not very cool," he added more music to create a "balanced" portrayal of himself.

Another participant was worried about what his co-workers would think of the Justin Timberlake and Michael McDonald music he had purchased for his wife and included in his library. Yet another user crafted his library around his German nationality and collection of German band music he thought others wouldn't have. Meanwhile, other users hid their expertise because they thought their co-workers would not relate to it or find it distasteful.

"My favorite vignette is about the manager who joined the network," Grinter recalled. "When the manager showed up and could start looking through people's music collections, people began to speculate that the manager's presence might be influencing the way others were managing what music they shared."

Despite users' efforts to portray a certain image with their playlists, these signals sometimes were misread based on the users' musical expertise and knowledge, Voida noted.

"One of the users only listened to classical music, while others in the group liked music like new age, rock and electronica," she explained. "The others thought that their music libraries distinguished them from their co-workers, but the classical music listener thought they were all the same. She did not pick up on the nuances, so the impression people thought they were giving off was not what she saw because of her musical background."

In another example, two users misperceived each others' interest. "One of the two had what he believed to be the ultimate James Taylor library," Voida said. "He wanted everyone to know that if they needed James Taylor, he was their man. His co-worker was into Irish folk music, and they agreed to share their music with one another so they could learn more about the other's music. One of them said he enjoyed listening to his co-worker's music, but the other wasn't listening to his in return, so there was a misunderstanding. One user overestimated the other's interest in his music."

Researchers also discovered that users tried to figure out which music collection belonged to which employee. It became somewhat of a detective game, Voida said.

"Most people didn't want to listen to anonymous collections, even though they didn't always want to talk to the playlists' creators," Grinter said. "…. They went to quite a bit of trouble to figure out which playlists belonged to whom. It's a peculiar social phenomenon. They don't want to live in a completely anonymous world, especially in the workplace."

Keith Edwards, also a former PARC researcher who is now an associate professor of computing at Georgia Tech, added: "iTunes was not designed for the not-quite-anonymous, not-quite-known user. And it's not clear Apple wants to go in this direction."

The researchers concluded: "One of the greatest challenges for technical innovation in music sharing may be in allowing designers to make the leap between treating music sharing technologies as personal music listening utilities and treating music sharing technologies as online communities. Although music sharing has traditionally been a strong indicator of group identity and has reflected shared musical taste, our study of iTunes music sharing has demonstrated that even groups with disparate musical tastes can form strong group identities."

Source: Georgia Institute of Technology