

## How listening to random sound can unlock a trapped mind

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David Tobin took to the stage at a recent technology conference in downtown Los Angeles, asked the 500 attendees to close their eyes, and turned up the sound so they could sample his wares: a textured, layered soundscape that he calls an "audiojack."

A thousand eyes clamped shut as they collectively heard a ball thudding into a glove. A cracking bat. Fans roaring with approval. "How does what you're hearing make you feel? What does it make you remember? There are no right or wrong answers," Tobin told the group, who'd gathered for demonstrations and discussions on how technology can improve the lives of our rapidly aging population. "It's all up to you to imagine," he said.

Taking back our imaginations from an onslaught of words, images, video and other stimuli is Tobin's goal with his business, Audiojack, so named, he says, because he hopes listeners will get "jacked" by the sounds.

A former television producer and one-time manager of the famous Roxy Theater on Hollywood's Sunset Strip, Tobin happened on the idea by accident. After a friend gave him a hard drive that contained a folder of sound effects. Just for fun, Tobin mixed them with no apparent plot or structure, leaving out any human voices. He found that friends who listened to his creation started "putting together a story instantly because your brain associates the sound with memory," he said.

Next he shared it with his mother, a teacher, who brought it into her



classroom and saw that kids seemed particularly engaged after a listening session. When a friend sampled it for his mother, who in turn played the soundscape for dementia patients she cared for at a senior center, Tobin began to realize he'd made something that had broad appeal and a useful application.

Senior citizens with even the most advanced <u>memory loss</u> have powerfully responded to his product. One elderly listener who'd not spoken a complete sentence in weeks was able to articulate memories triggered by the sound of cooking breakfast or of a tiger in the wild.

Tobin received similar encouragement from educators and students at the Perkins School for the Blind in Watertown, Mass., who asked him to make more audiojacks, and even invited him in for a group session. Students worked in an on-campus studio to make their own "movie for the mind."

Tobin has not yet conducted formal research into the efficacy of his sound recordings, but researchers in Canada have found that aural stimulation engages older people with memory loss, helping them to be more connected to their surroundings.

More well-understood are the benefits of music therapy, which has been shown in extensive patient studies at Harvard University and Oxford University to achieve reduced stress, and improved mood and social function, as well as regulated heartbeat and breathing. One program, SingFit, offers music playlists with lyric prompts specially designed to engage older people and others with <u>traumatic brain injury</u>.

Audiojack can cite one study by George Mason University that shows improved brain function for people with moderate to severe dementia who used the program over a four-month period. Fernando Roman at the city-funded Echo Park Senior Center just outside downtown Los



Angeles has seen this with his work. During the sessions he holds every few weeks, he hands out paper to each attendee, makes sure the room is quiet, and afterward asks them to share what images and feelings the soundscapes have stirred up. Though they're far from the Siberian tundra, much less the woods, the seniors listen and reflect.

"They get to see the wide range of where everyone's mind is at," Roman said. The fact that there are no spoken words makes it accessible to his multi-lingual clientele, too.

Art teacher Michele Mazzei at Edison High School in Fresno, Calif., has seen particular impact with all of her students, but particularly one boy with autism. Typically, he was silent, she said, but when she played one of Tobin's creations, he instantly responded. "He perked up, spoke, and pointed out what he heard," she said. "It got him to be part of something."

Tobin sells the audiojacks for institutional use with lesson plans and prompts, but it's also available to individual users in mobile app form. There's one free available in each category, and an annual subscription costs \$14.99. Lately, he said, he's seen a surge in downloads and mail from users who like listening to them for no other reason than to space out. Consider it an active form of meditation, where you can choose to imagine any visuals you like or none at all.

Tobin considers it the antithesis to virtual reality, another popular form of tech-mediated experience. "VR is so stimulating," he said. "You're locked in, your eyes are peeled, you can't get away from it. Here, you close your eyes and do it on your terms."

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