

DID YOU HEAR?

SOUNDING OFF

The three main forms developed for sound recording and reproduction are the mechanical (phonograph disc), optical (motion picture soundtracks and digital compact discs) and magnetic (recorded tape) systems.

**Thomas Edison**, an American inventor, developed the "talking machine," which could both record and reproduce sound, in 1877. His original Edison cylinder recordings used indentations embossed into a sheet of tinfoil by a vibrating stylus attached to a diaphragm.

**Emil Berliner**, a German-born American, invented the gramophone, flat disc, and the practice of using electroforming to make a negative of the master, which could be used to make copies.

**Early sound recording and reproduction** relied on acoustics. The vacuum-tube amplifier was used starting in the 1920s and marked the transition from acoustic to electrical recording. Microphones replaced acoustic horns.

**A modern electric phonograph** is made up of an amplifier, motor-driven turntable, cartridge and loudspeakers. A speed of 78 revolutions per minute, or rpm, became standard.

**Long-playing (LP) records**, which played at a speed of 33 1/3 rpm, were introduced in 1948; 45 rpm discs were introduced in 1949; stereophonic recordings, in 1958; quadrasonic discs in the 1970s.

**American Lee de Forest** invented the first optical system in 1923 using techniques for transcribing sound waves into pulses of light that could be photographed on a strip of film.

**Another type of optical recording** is a CD. Digitally mastered tapes converted into conventional phonograph discs first appeared in the 1970s, and fully digital compact discs, played by a laser, were available in the early 1980s. By the 1990s they became the most popular type of recording.

SOURCE: BRITANNICA ONLINE ENCYCLOPEDIA

# FACES + PLACES

HELLO, MY NAME IS  
**Amanda Hawley**

Geography encompasses more than maps, globes and capitals. Elementary education senior and Geography Club member Amanda Hawley said when studying geography, one is really studying how humans interact with the environment. The Geography Club participates in a latitude of activities ranging from guest lecturers who talk about using geography in the workplace, to trips to Detroit to learn about urban planning and urban geography. The club also works to improve playgrounds and promote geography education. "We paint a huge map of the United States on the playground," Hawley said. "It allows teachers to have a resource they didn't have before."

—Compiled by Daniel Luscombe, photo by Nick Dentamaro, The State News



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"Access to primary spoken word enlivens the research process. The ability to have that material at our fingertips, on our campus, puts us head and shoulders above our peers." **Shawn Nicholson**, head of the Main Library's Digital and Multimedia Center



PHOTOS BY NICK DENTAMARO/THE STATE NEWS

**Richard Peiffer** of the G. Robert Vincent Voice Library works with audio recordings from President Barack Obama's inauguration. Peiffer also was working on a project filling interviews with United Auto Workers members in Lansing.

## HEARING HISTORY

MSU's G. Robert Vincent Voice Library lets students listen to voices of the past

By **Julie Baker**  
THE STATE NEWS

There's just something about hearing a voice might not have been heard for 60 years that makes John Shaw appreciate his job. This comes from a man who has worked with a lot of sounds over the years, including the speeches of MSU presidents, Nazi propaganda from World War II, historical icons Amelia Earhart and Florence Nightingale and the campus visits of former President Bill Clinton and Martin Luther King Jr.

For 35 years, Shaw has been a part of MSU's G. Robert Vincent Voice Library, a collection of the voices of more than 100,000 political and cultural figures and average citizens, located on the fourth floor in the west wing of the Main Library.

Officially established in 1962, the voice library has since become the largest academic voice library in the United States, with more than 40,000 hours of primary-source material consisting mainly of speeches, interviews, lectures and performances dating back to 1888.

"Before photography, you never saw the real image of a person," said Shaw, assistant head of the library. "The older (sound recordings) are important because they exist; oth-

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English senior **Madeline Schichtel** watches a live audio feed of President Barack Obama's inauguration at the G. Robert Vincent Voice Library. The library records speeches, addresses and other moments in history through audio and archives them. Some of the material is available at <http://rvl.lib.msu.edu>.

To hear audio of interviews with Shaw and Peiffer, and the voices of former U.S. presidents, visit [stateneews.com/multimedia](http://stateneews.com/multimedia).