

THE ASSOCIATION FOR EDUCATIONAL COMMUNICATIONS AND TECHNOLOGY ARCHIVES: DISCOVERING WHO USED IT

By Casandra Hughes & Karen Woodworth-Roman

An old hand duplicator and an old school record player are two items in the Association for Educational Communications and Technology (AECT) Archives at Northern Illinois University. As students in a doctoral seminar, we were each given the task of researching the history of one of these two items. We both had very specific models of a widely used piece of educational technology equipment. The history of each item is interesting, but who used these technologies may be the most intriguing question that we asked about our items.

What is the AECT and why does it have an archive? “The AECT is a professional association of thousands of educators and others whose activities are directed toward improving instruction through technology.¹ It is one of the leading organizations of Educational and Instructional Technologists. The Lee and Lida Cochran AECT Archive “is a collection of hardware (audio, visual, and audiovisual machines) obtained from early organizations, conferences, founders, vendors, and users in the field” of Educational Technology. The archive’s original focus was to preserve early machines used in education, but it also includes some devices that were used for entertainment.²

One item in the AECT archives is an Ellams duplicator. The Ellams flatbed duplicator was a machine that utilized stencils, ink, and a roller to make duplicate copies of written work. It did not use any electrical components. The Ellams flatbed duplicator was compact, with all of its accessories stored in a wooden box, and was manufactured in London, England in the late 1800s and early 1900s. Its American counterpart, the Edison mimeograph, also came in a box and used stencils, ink, and a roller to make copies; however, it was manufactured in Chicago, IL. The term “mimeograph” was actually coined by a schoolteacher.³

In the history of educational technology, there has been little representation of the contributions of African Americans.⁴ In thinking about who used the duplicator and the record player, we were encouraged to think about whether they were used by diverse groups in terms of race, gender, and ethnicity.⁵ A photograph would be one way of offering proof that diverse groups used the item. Other methods would be oral history interviews or memoirs.

In our research, we found that African Americans were using a limited amount of educational technology. We explored the use of educational technology in the south during the time of segregation. We decided we wanted to try and find African Americans who had used educational technology, so I (Casandra Hughes) asked my grandmother if she knew any educators who may have used educational technology. My grandmother, Gertrude Harris, from Vicksburg, Mississippi, was born in 1926. Education was very important to her. Her mother was born in 1886, and her grandmother was born into slavery in 1865. My great-grandmother did not know how to read and write, but felt a strong desire to ensure that her children learned how to read. My grandmother’s siblings taught their parents how to read and write their names, and they used their newfound knowledge to their advantage as sharecroppers when it was time to settle accounts at the landowner’s general store. Her parents were able to save enough money to buy their own land and home.

My grandmother has shared many stories about her experiences in school in the segregated south. For example, I was surprised to hear that my grandmother had to pay her teacher directly for a shorthand and typing class that was offered at her school. Her school could not afford to pay the teacher to teach this elective course, so students who wanted to take the course would have to pay the teacher \$2 upon entering each class. There were very few employment options for African American women living in Mississippi during the 1940s. My grandmother said that this class was important to her because it gave her the skills to work as a secretary instead of working in the fields or as a maid.

My grandmother was a fantastic choice for this oral history project because she is a well-known figure in her

community, a pillar in her church, and a dedicated parent. She was able to contact three educators who were available for an interview in less than a few hours. Helen Caldwell, Saltine Tyler, and Gloria Queen shared their educational experiences of going to school and teaching in the south.⁶ They discussed their perspectives on segregation and the availability of resources. As a student growing up in Vicksburg, Mississippi, Helen remembered how her teachers managed with the few resources they had. She recalled the poor condition of the chalkboard and having to strain to see it. Helen also recalled her excitement when her teacher secured a reel-to-reel tape recorder. Her teacher recorded the students' voices as an experiment. Most of the students had never heard the recorded sound of their voices.

Saltine Tyler described having a very limited supply of technology as an educator in Vicksburg, Mississippi. Mrs. Tyler was my mother's twelfth-grade English teacher. She recalls having one projector available for the entire school. I asked Mrs. Tyler about the availability of African-American literature in textbooks or other media, and she explained that it did not exist. Often, she would bring in works from her own personal collection.

Gloria Queen, a close friend of my grandmother, had a personal connection to the Ellams or a very similar duplicator. Her memories take her back to her childhood. She remembered sitting in class and watching her English teacher making copies of weekly and unit tests.

The AECT Archives has a rare Rheem Califone 1120 Stereo model record player. The unique feature of this model is that its lid is comprised of two detachable speakers; the more common models had a built in speaker or a lid that was one speaker. This record player has markings indicating that it belonged to DeKalb High School in DeKalb, Illinois. Even Califone International, the audiovisual company, has little memory of this model. In response to a query about its age on the company Facebook page on November 15, 2012, they replied that it was circa 1966 to 1971.

Thomas Edison invented the phonograph in 1877 while working on improvements to the telegraph. An early advertisement quotes Thomas Edison as envisioning a phonograph in every American home.⁷ One might argue that he could have added "and in every American school" to that sentiment. Record players were ubiquitous in schools for several decades, and Califone was a major supplier. A college textbook has a picture of a "typical classroom phonograph" showing a Califone model that is visually very similar to the Rheem Califone 1120 Stereo.⁸

Record players were used educationally in racially and economically diverse schools. A photograph titled "Singing with a Record Player" from the 1950s on the U.S. National Library of Medicine website shows four African American girls singing at their nursery school with a teacher and a record player.⁹

Helen Caldwell used a record player for stories and musical games in the 1970s and 1980s when she was teaching, but it was already fading out. Saltine Tyler played recorded speeches and music for her students.

Mae Clark Orr, a teacher in North Carolina, discusses the disparity between the equipment at schools for black and white children during the segregation era and mentions both the duplicating technology and the record player

"She says she taught at a black school that had only one record player. All twelve grades had to share it. At the white high school, "there was a record player in every classroom. They were saying 'separate but equal' it was nowhere near equal. It wasn't...They had overhead projectors. They had all kinds of paper and things so you could mimeograph anything you wanted. We didn't have any of that."¹⁰

Califone International has posted some vintage promotional photographs on the photo sharing website flickr showing their products being used in physical education, language learning, and music classes. Though the photos are from the 1950s, they show some children of color. In a photograph dated March 1955, from Canalino Elementary School in Carpinteria, California, the camera focuses on a child with a dark skin tone listening to a record in the listening corner.¹¹

Patricia Cory notes another diverse use of record players in "School Library Services for Deaf Children: Audio

Visual Material” from 1960, which includes a three-speed, high fidelity turntable for auditory training in a list of exemplary equipment for a Deaf School of 250 students.¹²

The AECT Archives has many other pieces of educational technology such as reel to reel tape players and motion picture projectors that were mentioned in the oral history interviews and memoirs researched for this article. The AECT Archives of hardware artifacts is now mainly housed in a one-room schoolhouse museum on the campus of NIU. Local students may be able to arrange a field trip , but even from a distance, a portion of the collection can be viewed online. Students can help document and fill in the gaps about who used the equipment by interviewing their relatives and researching images on such websites as the Library of Congress. Studying the AECT Archives can also provide opportunities to use “tech talk,” or the language of communication used in the technology industry. As Patricia Young states in “Empowering Minority Students through Tech Talk,” “educating culturally and linguistically diverse students about technology begins with the conscious use of ‘tech talk.’¹³

Conducting the oral history was a great way to preserve the voices of these individuals, as they have filled in a gap in American history that has long been overlooked. Each one of these individuals had a story. Technology was there and was used by African Americans despite the absence in textbooks of this important part of history. In filling the gap, we can now examine the progress that was made in technology in African American history. Finding connections with technology in their own families may encourage students’ interest in technology.

Notes

1. For information about the AECT (Association for Educational Communications and Technology), see “What is AECT?” http://aect.site-ym.com/?page=about_landin .
2. Information about the Lee and Lida Cochran AECT Archives: <http://www.cedu.niu.edu/blackwell/multimedia/>.
3. Mary Pakenham, “Smithsonian Gets an Early Mimeograph.” *Chicago Tribune*, February 4, 1965 , <http://search.proquest.com/docview/179828640?accountid=12846>.
4. Patricia A. Young, “Instructional Technologies Designed by and for African Americans: An Examination of Several Works,” *The Western Journal of Black Studies* 32, no.() (Summer 2008): 31-40.
5. Rebecca P. Butler, “ETT 740: Seminar: Instructional Technology Foundations Fall 2012: AECT Archives Project. (2012).
6. Gertrude Harris, Helen Caldwell, Saltine Tyler, and Gloria Queen, interview by Casandra Hughes, Vicksburg, Mississippi, October 24, 2012.
7. Library of Congress,, Edison Invents the Phonograph,” http://www.americaslibrary.gov/aa/edison/aa_edison_phonograph_1.html.
8. Vernon S. Gerlach, Donald P. Ely, and Rob Melnic , *Teaching and Media: A Systematic Approach* (Englewood Cliffs, ...: Prentice-Hall, 2008), 313.
9. “Singing with a Record Player, 19 ?,” Images from the History of Medicine (IH), accessed November 25, 2012, <http://ihm.nlm.nih.gov/luna/servlet/view/search?q=A02991..>
10. Kate Ellis and Catherine Winter , “An Imperfect Revolution: Voices from the Desegregation Era,. American Public Media , Accessed November 25, 2011, <http://americanradioworks.publicradio.org/features/deseg/a1.html>.
11. “Califone Vintage Lifestyles, the Califone Listening Corner in Use at Canalino Elementary School, March 1955,” accessed November 25, 2012, <http://www.flickr.com/photos/califoneinternational/3522185979> .
12. Patricia Blair Cory. School Library Services for Deaf Children: Audio Visual Material. (Alexander Graham Bell Association for the Deaf,(1960), Accessed November 25, 2012, <http://www.dcmp.org/caai/nadh103.pdf>.
13. Patricia A. Young. “Empowering Minority Students through Tech Talk,” *TechTrend*, 46, no.(2 (2002): 46-49.

LESSON PLAN

EXPLORING TECHNOLOGY: DISCOVERING WHO USED IT

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CONNECTIONS TO MIDDLE SCHOOL AND/OR HIGH SCHOOL: All history is not found in textbooks. Many important events and ideas are not recorded. This exercise affords middle or high school students the opportunity to document and share their history using technology. Students will be able to identify and record historical background data that relates to their culture and personal lives.

GOALS OF LESSON PLAN: The goal of the lesson plan is to expose students to the art of data collection and digital storytelling. Students will use interviewing and data collection techniques to create a digital presentation of their work.

Objectives: Students will be able to identify, record, and present personal historical background data that relates to their culture and educational technology through the use of technology and oral history.

NATIONAL COUNCIL FOR SOCIAL STUDIES (NCSS) STANDARDS:**HISTORY****TEACHER EXPECTATIONS**

- Assist learners in developing historical research capabilities that enable them to formulate historical questions, obtain historical data, question historical data, identify the gaps in available records, place records in context, and construct sound historical interpretations;
- Enable learners to develop historical understanding through the avenues of social, political, economic, and cultural history and the history of science and technology.

CULTURE AND CULTURAL DIVERSITY**TEACHER EXPECTATIONS**

- Guide learners as they predict how data and experiences may be interpreted by people from diverse cultural perspectives and frames of reference;
- Assist learners to apply an understanding of culture as an integrated whole that explains the functions and interactions of language, literature, the arts, traditions, beliefs and values, and behavior patterns;
- Have learners interpret patterns of behavior reflecting values and attitudes that contribute or pose obstacles to cross-cultural understanding;

WARM-UP (ANTICIPATORY SET): Students will answer the following questions: What is technology? What type of technology do you use? Do you think using technology helps you learn? What technology do you think students used 20, 30, or even 60 years ago?

ACTIVITY (INSTRUCTION INPUT)

Teacher introduces the lesson by describing educational technology and showing examples of historical pieces in the Association for Educational Communications and Technology (AECT) archives. The teacher may want to have students select one of the items in the archives and include it in their research. Students will explore the technology used today and

compare it to what was used in the past. Students will write about their own history by interviewing at least two relatives or close family friends. If available, students will use technology (cell phone, portable recorder, ipad, mp3 player) to record the interviews. Students will find out what types of technology were used in schools historically. They will use tools like a graphic organizer or storyboard to organize the information. Then students will create a digital story, write a reflection, and discuss their findings with the class.

A FEW THINGS TO REMEMBER WHEN CONDUCTING AN ORAL HISTORY:

1. Remember your objectives (You are trying to find out more about the technology used in the past)
2. Set up your interviews
3. Determine your recording method (taking hand notes, recording device– preferred method)
4. Prepare your questions
5. Obtain a release of information form
6. Thank your interviewee for agreeing to participate
7. Ask interviewee to sign a release for—Discuss the purpose of the interview
8. Conduct interview
9. Thank interviewee again

- Remember your audience when interviewing someone, even a family member. Your audience may not know Maria is your grandmother or Jack is your uncle. When recording the interviews, make sure to include information about the person being interviewed; name, date, location, and relationship to interviewer.

SAMPLE QUESTIONS:

- Where did you go to school?
- What types of things did your teacher use to teach?
- Did you use any technology when you were in school? (for example, tape recorders, projectors, radios, printers, computers, television, etc.)
- What was the most exciting educational tool you used in school?
- Is there anything you would like to add?
- These questions are not inclusive. Use the questions as a guide and be prepared to ask follow-up questions.

DIGITAL STORY, REFLECTION, AND PRESENTATION

Students will make a digital story about the differences between educational technologies that are used today and what was used historically. Students will use the data they collected from their oral histories to create a story. They will then find images or take pictures of the different type of technology used both now and then. Students should include some details about each picture. Students will write a reflection that includes thoughts about their experiences, things they learned, what they would do differently the next time, and how they will continue to record their family's history.

DISCUSSION

After the digital stories are presented, the teacher and students will have a group discussion. Students will discuss their

reflections and answer discussion questions. Possible discussion questions: Is there something new you learned about any of your classmates? Why do you think our stories were so similar or different?

ASSESSMENT: The students will be assessed on the quality of their research, presentation, and discussion. Teachers should create a rubric assessing:

ORAL HISTORY DATA COLLECTION: Did the student ask meaningful questions? Does the information reflect the objectives? Is the data organized? Did the student provide a reflection?

PRESENTATION: Is the presentation organized in sequence and does the story unfold naturally and logically? Did the student show the relationships between self and interviewees? Did the student use good design principles?

DISCUSSION: Did the student provide meaningful contributions to the discussion?

Teacher Resources:

- The Educational Uses of Digital Storytelling: <http://digitalstorytelling.coe.uh.edu/>
- Guide to Digital Storytelling: <http://langwitches.org/blog/wp-content/uploads/2009/12/Digital-Storytelling-Guide-by-Silvia-Rosenthal-Tolisano.pdf>
- Doing Oral History: A Practical Guide by Donald A. Ritchie: <http://granturi.ubbcluj.ro/tlnistorie/pdf/Doing%20Oral%20History%20A%20Practical%20Guide%20Donald%20A.%20Ritchie.pdf>
- The Smithsonian Folklife and Oral History Interviewing Guide by Marjorie Hunt: http://www.folklife.si.edu/education_exhibits/resources/guide/introduction.aspx



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