DATA PRESERVATION AT THE OWEN COUNTY PUBLIC LIBRARY: A "SCHOOLS THAT WORK" PROJECT AT OWEN VALLEY HIGH SCHOOL

by Ellen Dibble

Many librarians worry about the longevity of data stored by computers, especially at the rate which programs change and machines evolve. A fortuitous partnership of community, school and library, featuring a talented high school student, was able to salvage data from an outdated computer system. This partnership allowed the student to work on a real-world service project for his community.

Josh Nichols, a senior at Owen Valley High School, has attended a vocational program in computer technology. He has also been a technical assistant for Carolyn Livingston, the high school technology teacher. As a technical assistant, he was scheduled for a class that allowed him to work on school and community technology projects. This class was part of an extensive "Schools That Work" program implemented with block scheduling at Owen Valley High School. The project that he was recruited to solve was to transfer data from an old computer system to a new one and make it usable again.

More than a decade ago, the Owen County Historical and Genealogical Society purchased an Apple II computer for use at the Owen County Public Library. They supported the creation of a database of cemetery and obituary information as a genealogical research tool. The Library maintained the database in their genealogy department and it served as a popular resource. Over the years the Apple II needed minor service and the Spencer Owen Community Schools, who were heavily invested in Apples, supplied advice and even exchanged what were becoming outdated parts to keep the system running. Everyone involved knew that conversion to a more modern database should take place, but unexpected technical difficulties were involved.

Many older Apple databases converted easily to DOS and Macintosh because they were stored in the universal code for alphanumeric characters. Text files in ASCII translate to any platform because the basic code that represents the text in the files is the same. In the days of the first Apples, however, some programming languages such as Prolog were used to store more information in less space. This was a kind of precursor to the Y2K bug for those involved in this project. The Apple II files were stored in an untranslatable format. The only obvious way to extract the database information as text was to print it!

Several efforts were made over the years either to capture the print files from the Apple or to find a computer expert who could solve the conversion problems, but each effort proved unsuccessful. The Historical Society was almost resigned to converting the old-fashioned way by retyping thousands of records from a print copy. Upkeep of the database was suspended since it was uncertain whether it could be converted.

When Livingston explained this community project to Josh, he was told that others had failed to find a workable technical solution. Woody Barton, the Historical Society representative, was consulted about his quest to learn all he could about the program to find a technical solution. As a retired engineer, he was sure that something technical could be done to solve the problem. In the end, it was a combination of old and new technologies that worked, with a healthy dose of youthful ingenuity and can-do attitude.

Ellen Dibble, the media specialist at Spencer Elementary School, was contacted because of her experience with the Apple II platform and she agreed to mentor Josh's quest for a solution. Spencer Elementary uses an extensive Apple II network of over 70 computers. Although it is an outdated system, it still provides some useful educational software and it refuses to stop working. Macintosh, Windows, and DOS platforms are also implemented at the school and expertise was available in database creation and cross-platform file transfers. Josh tried several configurations of hardware and software that were good practice, but his early efforts also failed. Josh was not discouraged however, and a transfer solution was finally set up between a Macintosh with an Apple II emulation card and a 386 laptop. This older school equipment was loaned and temporarily installed at the public library. The genealogy files were run on the Apple II emulation card and sent to the "printer" but captured by a null modem connection with communications software on the DOS laptop. The conversion was on its way.

Once Josh successfully determined the conversion process, he began to develop the database for the current genealogy computer, a Pentium running Windows 95 and Microsoft Office. Josh created his first Access database application. It is able to import the text data from Word files of the original data. The application allows patrons to view and print individual records and cemetery lists. New records can be easily added so the continued maintenance and update of the database by library and historical society personnel is possible.

Josh transferred the application from Spencer Elementary to the library using his own Zip drive. He demonstrated the program to Vickie Freeland, the Owen County Library Director. The Historical Society and the Library are using the conversion process that Josh set up to extract the rest of the data and the Owen County Public Library will again enter this data for the use of library patrons studying genealogy. The information has been successfully transferred to a form that is more accessible today.

Technically talented students can participate in bridging the gap between old and new technologies. They can continue to develop their skills by adopting community projects. The genealogy department of Owen County Public Library is richer due to this cooperative venture between community and school, and Josh Nichols has developed important skills both as a future employee and as a community member.

ABOUT THE AUTHOR:

Ellen Dibble was a media specialist and technology coordinator for 10 years at Spencer Elementary. She holds a BS in English from ISU, an MS in Instructional Technology from IU, and is enrolled in the Masters in Information Science (MIS) program at the IU School of Library and Information Science. She recently took a leave of absence and joined her husband in Phoenix for a year.