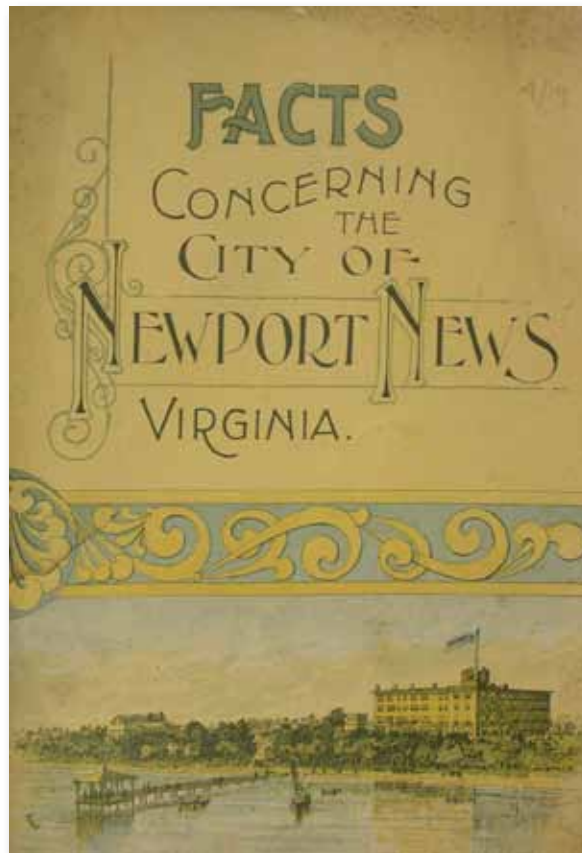# Electronic Collections Management: A Case Study

by Gregg Grunow

For those who may be considering their own forays into digitizing special collections, this article provides an overview of the experiences of one public library's special collections department in planning, developing, and maintaining a digital collection, and making it accessible on the Internet. Now six years old, the digital library experiment at the Newport News Public Library System (NNPLS) faces another set of important decisions—just as important as the decision to begin the project.

Approximately six years ago, NNPLS decided to develop a digital library collection from materials housed in the Martha Woodroof Hiden Memorial Collection located at our Main Street Library. The Friends of the Newport News Public Library System provided the money to cover the purchase of a digital library management system and equipment, with additional funding from an individual donor. After gathering information both individually and through the Informal Request for Purchase process, NNPLS decided to purchase the CONTENTdm digital library management system. At the time, it was decided that the library system would maintain the proposed digital library internally. We then purchased a Gateway server and computer workstation. Within the same time period, a library patron donated money for a scanner. A Microtek ScanMaker i700 was purchased to digitally scan the smaller documents in the collection. After three years of hard use, this Microtek scanner began to fail. We were able to purchase a new Epson 10000XL scanner capable of scanning material up to eleven by seventeen inches, which will allow us to scan many of our smaller maps and larger photographs.

After reviewing the collection, we found that there was plenty of material in the public domain to work with for the foreseeable future. Therefore, copyright considerations would not come up until the public domain materials were exhausted. After much consideration, we decided to begin building two small experimental collections utilizing Newport News-related postcards published in the late 1800s to early 1900s. The postcards were scanned at a resolution of 600 dpi and saved as lossless TIFF files to get the most detailed images the computers could handle. These images were stored on the hard drive of the computer workstation and ultimately on the CONTENTdm server. The successful postcard collections were followed up with scanned booklets of ten to thirty pages each.

Our next project was more ambitious. We had endowment funds from a bequest from Dr. Herbert Neisser made available for the digital imaging of our collection of Old Dominion Land Company maps. The collection is comprised of seven hundred-plus

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maps. There were enough funds spread over two years to have three hundred of the maps professionally imaged by the successful bidder, Northeast Document Conservation Center. The maps were too large to scan in-house. The imaging took place from 2007–2009.

Eventually our image storage decision had to be revisited. It turned out that the very dense 600 dpi TIFF images were rapidly filling up the available storage space on the server as well as tremendously slowing down both the server and retrieval of images by users. The large images stored on the Gateway workstation were also destroying its hard drive. At this point, a change in storage methodology was instituted.

We purchased two Western Digital external hard drive/mirror drives with two terabytes' storage capacity each. The 600 dpi TIFF archival images were transferred to these hard drives. Since the drives were mirrored, the images were effectively stored on four different drives. The large TIFF images on the server were then removed and replaced with much smaller ninety dpi JPEG images, thus allowing the server to work more efficiently. As an added advantage, the ninety dpi files allowed us to exert some control over the use of images in the collections. At this resolution, the images look fine on the computer screen, but are not dense enough to print out well or to be used in a publishing capacity. Users have to contact us for higher resolution images. This seemed like a less disruptive method of retaining some control than watermarking or branding all of the images.

The sense of comfort over solving the image file storage problem was relatively short-lived. Approximately a year and a half later, one small pin in the connection between one of the external hard

Right, Hilton Village

Below, H.W. Silsby Building, 1899

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drives and the computer broke. Of course, this was on a part that could not be fixed. Communication between the drive and the computer was lost. Fortunately, by plugging the external hard drive directly into the hard drive within the computer, the image files that

had not yet been transferred to the second external drive were able to be retrieved and stored. Research into other storage systems is needed.

Now, in late 2011, we have come to another crossroads for our electronic collections. Our CONTENTdm server is six years old and coming closer and closer to its end-of-life. We cannot make any more CONTENTdm system upgrades, as a new generation of server is needed to run them. At this point, we have to make the decision to purchase a new server or switch over to an online-hosted solution.

This short case study in electronic collections goes to show that the work on an electronic collection is never finished. The image files and metadata have to be constantly monitored and protected. No storage solutions or electronic equipment lasts forever. Funds will always need to be set aside for the long-term maintenance of your electronic collections.

The electronic collections of the Newport News Public Library System can be seen at http://www.nngov.com/library/resources/digital. Please take a look at our Facebook page at http://www.facebook.com/MW.Hiden.Collection. **VL**