

Digital archives as an outreach tool: The role of the observatory librarian

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Abstract. Digital archives are an increasingly important resource for astronomy outreach. Observatory librarians can play an important role in outreach activities through the creation and maintenance of these archives. The National Optical Astronomy Observatory (NOAO) has a large collection of materials, including images, videos, reports, web pages, and publications. The observatory librarian in conjunction with education and outreach personnel is digitizing and organizing these visual and textual materials into digital archives accessible through our website. This digital archives project will enhance access to our informational materials and assist us in extending our outreach activities to diverse communities through digital means.

Keywords. digital archives, observatory librarians, outreach activities, astronomy education

1. Digital Archives

A digital archive is a knowledge repository that contains collections of digital information objects. These archives provide for preservation of these objects and allow for broad access to them through electronic means, such as email and the web. The objects in a digital archive include such materials as graphic images, electronic transcriptions, images of textual material, web pages, and audio/video clips. The archive includes both the data in the objects and explanatory material such as metadata and inventories. The material in a digital archive has multiple uses, including use in supporting education and outreach efforts of an observatory.



Figure 1. Vera Rubin at the no.1 0.9m telescope at Kitt Peak National Observatory. Rubin was a prominent woman astronomer and strong advocate for women in astronomy. Our archival material relating to Rubin can help inspire others to follow a path in astronomy.

2. Outreach Opportunities

A digital archive is a valuable information resource for outreach professionals, educators, research astronomers, and the public. The material in the archive can be used in teaching, research, and outreach programs for both individuals and groups. It can also be used in training education and outreach staff. Digital materials can be easily searched, accessed, and shared. By digitizing physical materials, we can increase knowledge of and extend access to these materials.

Digital archives give us the ability to provide outreach and education activities to diverse communities through digital means. The archive will aid in providing and extending outreach and education services to underserved communities that may not have access to physical libraries and archives and to global communities who can access our archival materials through electronic means.

3. Role of Observatory Librarians

Librarians are specialists in the organization and retrieval of information. They understand the importance of preserving and providing access to informational materials. They thus offer many skills that are vital in developing and cultivating digital archives: familiarity with organizational schemes; a passion for education; practice describing materials through metadata, finding aids, and indexes; proficiency in assessing the needs of diverse communities; an understanding of individuals' information-searching practices; and the capability to design effective user interfaces to databases.

The observatory librarian can aid the mission and activities of the observatory's public outreach and education staff by advocating for the development of digital archives and offering their skills in creating and maintaining this resource. Working in collaboration with subject specialists (outreach staff, educators, and scientists), they can devise powerful digital archives that will serve to advance astronomy education and outreach.

4. National Optical Astronomy Observatory Digital Archive

The National Optical Astronomy Observatory (NOAO) consists of Kitt Peak National Observatory, Tucson, Arizona, USA, and Cerro Tololo Inter-American Observatory, La Serena, Chile. Both sites have active education and public outreach programs and visitor centers. The observatory has a large collection of historical and educational materials illuminating our nearly 60-year-long history, our programs, and astronomy in general. The observatory librarian in conjunction with outreach personnel is identifying, digitizing, and organizing these visual and textual materials into a digital archive accessible through our website.

Resources in the NOAO Digital Archive

- images
- films, videos, and audiotapes
- staff correspondence and biographical material
- organizational reports and publications, including the NOAO Newsletter
- brochures, handouts, and informational materials

Organizational Tools

- Digital Archive website
- online catalog entries
- NOAO Newsletter index
- inventory of collection, with searching and sorting capabilities of file
- finding aid, with detailed information about scope and organization of the archive