

Managing a digital archiving project at the University of the West Indies Library: a case study

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Abstract

Digital archiving presents a ready solution to the problem of hidden special collections. The availability of information and communication technology solutions provide libraries, archives and museums with a way forward. However, cost constraints present a real challenge to institutions, especially in the developing world where digitization projects must compete for scarce resources with many other pressing services. In the competition for resources special collections sometimes play second fiddle to immediate services, for example user facilities.

The Library of the University of the West Indies (UWI), Mona, faced with limited and declining financial resources, yet recognizing the value of its growing but hidden special collections especially to scholarship at the university, as well as to the cultural and historical significance of the Caribbean region, sought cost-effective and innovative solutions to address the situation and to go 'global' with these collections.

This paper uses a case study approach and details the strategies employed by a team at the University of the West Indies, Mona Library, including the acquisition of equipment, selection of collections to be included, and digitization of thirty collections of varied formats as well as deliberate collaborative initiatives at training of staff to ensure sustainability. It discusses challenges in the on-going process, and complications alluded to by Prochaska (2009) especially those of legal issues, politics, ownership, and values involved in stewardship of the collections. The paper posits solutions against a background of scarce resources as well as opportunities for far reaching and effective services.

KEYWORDS: digitization, special collections, University of the West Indies Mona, digital curation, hidden collections

Introduction

In supporting the contribution of special collections to the parent organization in academia, Daigle (2012) has recognized the symbiotic relationship between these collections and the libraries or parent organizations to which they are affiliated. He posits the view that as services in the parent organization become more dependent on technology, patrons' expectations for the special collections to provide equivalent services mount. As born digital and other digital services are provided, special collections have been pushed toward providing digital services to fulfil the now common "anywhere, anytime" expectations of researchers. These special collections add to the prestige of their parent organization as well as support the research needs of its scholars but are in danger of disappearing if they do not join the digital domain (Navarro 2015). Consequently, the preservation of these unique collections must also mirror the services provided by the general collections to which they are attached. As academic libraries become more digital, the demands for special collections to be digitized becomes more urgent.

Digitization has been advanced as the solution to challenges faced by special collections librarians because it allows ease of access and reduces excessive handling placed on fragile and valuable documents (Erway 2010). It also permits preservation of documents in different formats such as sound and video which would normally require playback equipment, some of which are themselves facing obsolescence. Access to the Internet allows the possibility of providing remote access thus facilitating research. The ability to provide access to varied formats is proffered as a benefit as audio visuals, the source of a great deal of information for oral cultures, like those of the Caribbean, can also be integrated into research collections. Prochaska refers to the "dizzying possibilities" (13) that digitization presents to special librarians. Obeidat and Genoni (2010) discuss this challenge for developing countries in raising the question of the digital divide. The countries of the Caribbean are classified as transitional, that is they are not seen as being deprived and so may be expected to display a level of technological development. Obeidat and Genoni suggest that libraries in academia in developing countries are possible catalysts in bridging the digital divide (385). However, for some libraries which lack the expertise and wherewithal to pursue these possibilities digitization represents a further frustration. The requirements for digitization facilities include expensive equipment and software as well as staff with capabilities to undertake the project.

Prochaska (2009) contends that "digitization of special collections has always been a "complicated picture" and sees the problem of scarce resources as well as "expectations that outrun available technology and expertise" (13), as major parts of this complicated picture. In addition, she identifies politics, legal issues, organizational boundaries, as well as "the ways in which cultural and historical ownership interacts with responsibilities and values involved in stewardship of original materials" as other matters which complicate the digitization process.

Erway's review article (2012) brings together several of the options which were considered by digitization projects in the USA and discusses how they were dealt with. Areas considered relevant to the Mona Library include selection policy, intellectual property considerations, provenance of collections and conditions of donations. Erway also raised the question of quality control and the importance of metadata to the digitization process. The lack of documentation on which to deal with provenance and rights management was a major hurdle. The Jamaican Copyright Law has quite restrictive educational use exceptions. The shortage of cataloguing staff was also a concern as metadata would be crucial for discovery through the Library's online portal. In the end the team adopted the "just do it" attitude (Erway 2012, 295) which meant that the Library decided to go ahead and implement a digitization project in a relatively short timeframe, and with limited funds, to try and accomplish the goal set out in the Strategic Plan (2007-2012) which placed access and preservation at the centre of projections for the Library in 2007. The question of visibility of, and access to the very valuable and in many cases unique special collections led to a drastic decision in the Library to proceed with a pilot project to begin digitization of selected special collections, without having put in place many of the facilities that have been suggested as necessary requirements (Kerr-Campbell and Salmon 2013). According to Prochaska there are three fundamental elements which must be considered. These are "long term preservation, provision for access and the ability to repurpose digitized versions" (19). The UWI Library plan included elements of the first two but was lacking in the third element. Prochaska's additional concern with intellectual property and privacy matters is also important to small developing countries as they face the added need to protect their national heritage. Past experiences of institutions in these countries have led to the belief that larger and richer institutions may purloin material owned by smaller, poorer institutions to their detriment, as assistance from them may lead to their material being appropriated as a *quid pro quo* for assistance in providing technology and facilities.

The University of the West Indies

The University of the West Indies is a regional, multi-campus institution established originally in Jamaica as a College of the University of London in 1948. In 1962 it gained full university status and currently serves 17 independent countries from three country campuses (Mona in Jamaica, St Augustine in Trinidad and Tobago, and Cave Hill in Barbados), and one virtual campus, with a total enrolment of 56,000 students (UWI).

From its inception in 1948 one of the main collection development aims of the Library at the Mona campus, was an emphasis on West Indian material, and a policy of pursuit of rare and special material. Many of these collections were acquired through donations to the fledgling University. Some were purchased in the era when West Indian material was not a premium and so material was accessible through purchase. As research in this area grew, however, costs increased to the extent

that at present the Mona Library is unable to compete in the acquisition of special collections. The already acquired collections have appreciated in value both monetary and as research material.

Rich, hidden collections

While there has been steady growth in the valuable special collections at the UWI Mona Library, most of these collections could be considered “hidden”, as they were not reflected in the catalogue and no web-based finding aids had been created. This situation runs counter to the Mona Library’s stated mission “To be a gateway to global information supporting the teaching, learning and research needs of the university community thereby enhancing its regional and global reach.” (Library mission statement. <http://www.mona.uwi.edu/library/welcome>)

In fact, the Special Collections librarians had acted as gatekeepers to the collections. This was another push factor in the decision to digitize, as these original professionals who had been instrumental in building the collections, had attained retirement age, and their expertise was being lost to the researchers who had depended on their intimate knowledge of the collections to assist them in their research. In addition, the Library had moved to a completely online environment with an OPAC which unified the catalogues of all four UWI campus libraries, and integrated online databases and electronic books, providing the possibility of accessing digital material remotely through the OPAC.

Further, in 2005 the Special Collections Section had embarked on a push to create a Caribbean Leaders Collection. This would take the emphasis in collection building away from books as these collections were predominantly archival. One of the enticements for donations to this collection would be the possibility of digitization of the new collections facilitating both access and preservation. The Caribbean Leaders Collection has grown exponentially since its inception, encompassing papers of three former Jamaican Prime Ministers and several prominent retired intellectuals. These were added to the other collections which included a manuscript of Derek Walcott, a UWI alumnus and Nobel laureate in Literature, the Roger Mais Collection, inscribed in the UNESCO Regional Memory of the World Register, and several pioneering Caribbean writers of the post-colonial literary genre including Wilson Harris and Austin Clarke. Other items include numerous rare books, manuscripts, maps, microfilm and audio visual material. Other twentieth century items include the Archibald Cooper Papers (1939) which consist of ethnographic field notes and photographs of research among the Jamaican maroons. The Cassidy Collection includes linguistic research and field notes for *the Dictionary of Jamaican English* (1967), recognised as the first scholarly dictionary of an English-based Creole language. Audio visual collections include oral history tapes of interviews of early 20th century Jamaican crafts workers. In addition, The UWI was also working towards the deposit of born digital dissertations.

Also included in the collections are several historical manuscripts which shed light on slavery and the colonial period. The Library had in the past been able to repatriate microfilm copies of colonial government documents dating back to the mid-seventeenth century. This collection documents the British colonisation enterprise and records the creation of the legal and governmental system, the settlement system, the inception of the sugar industry and the system of slavery. Also available is a map collection numbering over 200 unique rare maps, including seventeenth century representations of the newly “discovered” West Indies as well as individual islands. The University Collection includes graduate dissertations accepted since the inception of the University from all four campuses representing over fifty years of pioneering research on the Caribbean.

Mandate

The Mona Library was at a crossroad of decision to provide greater access to its rich special collections, especially as the UWI Strategic Plan (2007-2012) stated inter alia

We propose to make full use of communication technology to create stimulating learning environments. By using the Internet, video-conferencing and other modalities a teaching-learning environment will be created in which lecturers, learners, graduate teaching/research assistants, tutors, **librarians** (our emphasis) and learning resources can all be networked (13).

In furtherance of this goal, in 2008 the Library embarked on a project to begin digitization of its special collections. This decision was also precipitated by the desire to make the collections visible and to attract more donors to the Library. A plan to establish a digitization facility had been approved but no funding was forthcoming. A strategic decision was therefore taken to begin the project and then seek funding either from the UWI administration or external funding agencies through grant funding. The pilot project was designed to demonstrate that the Library was capable of digitizing a collection to convince the administration to provide resources for the facility.

Existing digitization solutions

The Library team agreed that digitization would be the immediate solution to provide visibility and access to these hidden, scarce, rare resources, as well as the newly acquired Caribbean Leaders Collection. The stage had been set as the information technology division of the Mona Campus, Mona Information Technology Services (MITS) had been instrumental in supporting university wide teaching by digitizing material for lecturers and enabling the uploading of audio-visual and digital resources to online course containers (Kerr-Campbell

and Salmon 2013, 193). Faculty had also digitized photographs and other data in support of their various teaching websites. In addition, CONTENTdm, the digital management system supplied by OCLC became the software of choice due to its wide usage by academic libraries, and which would assure continuing updates of the software. Most product documentation and tutorials were freely accessible online, and the OCLC Support Centre was very assistive and prompt in answering queries.

Digitization decisions

At the early stage of the project, an initial list of 20 collections of varied formats, considered as collections of scholarly value, were selected. These collections were prioritized in terms of physical condition and perceived research potential (Kerr-Campbell and Salmon 2013). They included twentieth century diaries, eighteenth-century newspapers, rare books that were under threat as well as maps, an early twentieth-century/late nineteenth-century picture-postcard collection, and recent acquisitions (2013, 193) which would act as a learning base for the digitization project.

The Cousins Hereward Postcards Collection which consisted of 212 picture postcards was the first collection to have been scanned and digitized. This collection was selected because it was owned by the Library and the postcards were in the public domain. Online access would eliminate the laborious manual process of searching through the entire postcards collection to identify potential picture cards for inclusion in publications (Kerr-Campbell and Salmon 2013, 193). Since digitization and online access, several researchers have used the postcards for illustrations and book covers (See Moore & Johnson 2011; Ranston 2011; Buckridge 2016; Brown and Rosenberg 2015)¹.

The Collection was in good condition and could withstand the rigor of digitization and any inexperience on the part of the technicians and student assistants who worked on the project. As digitization progressed, new collections were included such as *The University of the West Indies Historical Photographs Collection* which includes photographs dating to the inception of the University College of the West Indies. Images included the first UWI students who were 33 medical undergraduates; early laboratories, and dormitories with furnishings of that era. The rich UWI Mona collections revealed the cultural and historical side of the campus.

1 Brian Moore and Michelle Johnson. 'They do as they please': The Jamaica Struggle for Cultural Freedom after Morant Bay (Kingston: UWI Press, 2011); Jackie Ranston. Behind the Scenes at King's House 1873-2010. (Kingston: Jamaica National Building Society, 2011); Steeve Buckridge. African Lace-Bark in the Caribbean: The Construction of Race, Class and Gender (London: Bloomsbury Academics, 2016); J. Dillon Brown and Leah Reade Rosenberg. Beyond Windrush: Rethinking Postwar Anglophone Caribbean Literature (Jackson, MS: University Presses of Mississippi, 2015)

Scarce resources, innovative solutions

The earliest challenges were the lack of trained staff and appropriate equipment to carry out the assigned tasks. However, this did not deter the staff responsible for the implementation. With a given mandate to digitize, with only a content management software and a commissioned server, the staff found a solution in the use of an old Hewlett-Packard scan jet automatic document feeder scanner c7716 that was used to provide services to visually impaired students (VISTAS). Students used this service in the afternoons, so the opportunity was provided for scanning in the mornings. The age of the scanner did not detract from the quality of the images. It was adequate to produce the 72 dpi and the 300 dpi resolutions required for surrogates for online access and archival purposes respectively (Kerr-Campbell and Salmon 197). Inexpensive PaperPort software was used to edit images. Assistance was provided by the university administration after some images were uploaded to the installed CONTENTdm software and were visible to the team. After this obvious proof of progress, a student assistant was assigned, followed by two technicians and the purchase of a Bookeye 3 scanner.

The Bookeye 3 scanner was specifically chosen as it was felt that it had the capabilities to digitize different types and sizes of materials in the collections and at very high resolutions: a maximum of 600 dpi; and within 5 seconds could scan a full bed at 300 dpi, and in 7 seconds, a full bed at 600 dpi. This scanner has some of the most well used formats used in digitization of materials such as JPEG, TIFF and pdf. Its motorised and adjustable cradle arms allow both sides of an opened book to be on the same level under the integrated glass plate under the camera for better scanned quality images.

The Library developed a partnership with Mona GeoInformatics, a technology-intensive Institute owned by The UWI. The Bookeye3 scanner and 2 Library technicians were accommodated at this facility and IT support provided.

Scarce resources: value added

Metadata has been added to the larger collections such as the Roger Mais Collections of short stories, articles, plays, as well as the Postcards; The University of the West Indies Historical Photographs; The West Indian Journey of a 1961 undergraduate; the Erna Brodber Collection and the collection of rare maps. Embedded in the CONTENTdm software is a data input form which can be customised by adding additional fields. This facilitated the adding of metadata for individual items in each collection, and these are retrievable by author/creator, keywords in the description of the item, Library of Congress subject headings, collection title and date.

From the Online Public Access Catalogue (OPAC), each collection title is accessible via a URL that is inserted into the 856 field of the catalogue record. This record is harvested by UWILinC and accessible within this discovery interface. In addition,

The Open Archives Initiative (OAI) is embedded in the digital management system, and it is activated to harvest selected collections. So, there is item level and collection level access via the Library's discovery interface (UWILinC). There is also a link from the Library's website to the collections displayed and searchable in the CONTENTdm website. Finally, the collections are discoverable on the Internet.

Presently, there are approximately, 2245 documents including postcards, photographs, short stories, newspapers, maps and plays, totalling thousands of pages in the digitized collections. Master and surrogate copies of the collections are stored on external drives and secured in a vault.

Scarce resources: avoiding obsolescence

The CONTENTdm digital content management system software is used by over 2000 libraries worldwide. To maintain its competitiveness, it has to update its software in a timely manner. Quite recently, the Mona Library upgraded to CONTENTdm version 6.10, and migrated its collections from a LINUX 32 bit server to a new LINUX 64 bit server. Challenges were experienced in the installation of the components of the software, as well as getting the migrated collections visible and searchable. Suggestions from OCLC support, MITS, and past experiences helped to resolve the issues. The Mona Library is in the final stages of preparing to publish the migrated version of the collections.

Innovative solutions: capacity building

In their 2013 article Kim, Warga and Moen identified several competencies considered desirable for persons involved in digitization projects. These included:

"Knowledge and familiarity with multiple operating systems..., knowledge of and proficiency using the tools and application that support preservation curation and management of digital content..." (242) In addition, project management skills were considered important for digital curation, as were 'library skills' such as selection, acquisition, creation of metadata and repository management (243).

A SWOT analysis identified that there were several areas of expertise which needed to be acquired or upgraded. Consequently, a deliberate policy of capacity building was implemented. A cross-disciplinary team was established comprising librarians from Preservation and Conservation, Cataloguing, Systems Development, Special Collections, and Senior Administration. The Team embarked on a process of capacity building.

This was achieved through a combination of initiatives all geared at increasing knowledge and gaining competencies required for the project. These included

attachments, training courses, attendance at workshops and conferences, and partnerships with libraries that had already implemented digitization programmes. Librarians were able to utilize available UWI Study Leave and Study and Travel Grants. Technical staff was funded by the Library.

Staff was selected with some prior attributes that would be useful to implement the project. These included some of those Kim, Warga, Moen (2013) analysed in job advertisements for Digital Curation posts. Previous IT knowledge gained from projects such as website development, the Integrated Library System and database development were a plus for the staff.

Innovative solutions: collaborative initiatives

The National Library of Jamaica (NLJ) had already attempted a digitization project. Initial assistance was gained from an informal visit to NLJ to observe their digitization activities. Although there were challenges at NLJ and they had discontinued their digitization project, the team was able to observe the equipment used, and the Head of Information Technology shared valuable information from their in-house manual and technical details about the digitization process.

Help also came from negotiated attachments at the Mississippi State University. The Dean of Libraries, librarians, and IT library staff hosted the Mona Systems Librarian at the inception of the project. Another initial and valuable attachment was at the George A. Smathers Library, University of Florida, which was arranged for the lead technician and funded by the Mona Library. He was introduced to the Centre's scanning techniques, general workflows using different scanners, conversion of microfilm to digital formats, colour calibration and editing of images using Photoshop CS (M. Kerr-Campbell, personal communication, August 31, 2009).

Attachments were also arranged to our sister library at The UWI St Augustine Campus where Special Collections librarians were introduced to Archivists Toolkit. The Library at St Augustine is the lead for the university-wide institutional repository and attachments were also arranged for a Systems Librarian.

The Preservation Librarian completed a Certificate in Preservation Management at Rutgers University. He also participated in attachments at Cornell and Columbia Universities.

The Head, West Indies and Special Collections was trained in Copyright issues. All librarians attended courses in grant writing.

Conference- attendance also played a significant role in developing awareness of trends in digitization. Such conferences included the International Federation of Library Associations and Institutions (IFLA), the Association of Caribbean University, Research and Institutional Libraries (ACURIL) and ALA Rare Book and Manuscript Section Meetings.

Outcomes: successes and further challenges

After the initial digitization project (20 selected collections) was successfully completed, annual targets relating to digitization initiatives formed part of the Library's work plan. This has led to greater successes. To date 30 collections have been digitized and access provided via the Library's web site. As the successful progress of the digitization program drew attention to hidden resources, plans were developed to repurpose a storage area into a digitization facility. This is still in abeyance due to lack of funds. Nevertheless, the exercise of developing plans, was useful as it provided the opportunity for the team to undertake research into the requirements of a fully functional facility and will provide the basis for grant proposals. Several grant proposals were subsequently written and the ongoing digitization project benefitted from two successful proposals. Funds from these projects have helped to employ a part time cataloguer (to create metadata for some of the collections), employ student assistants for editing the images, and for consulting current and past faculty and staff to assist in identifying some of the early UWI photographs. Two computers were also purchased from the grants. Plans are being considered for relocating the Bookeye scanner from Mona GeoInformatics where it was originally assembled to the Main Library.

The outcomes of the digitization programme over the years have been encouraging despite the challenges faced. Digitization has enabled visibility and 24/7 access to these collections globally. In addition, usage of these scarce, rare and previously inaccessible West Indian resources has increased, and the Library has also benefitted from requests for high resolution images for use in journal articles and books, which provides recognition to the University of the West Indies. Other ICT implementations in the Library that preceded the introduction of the digitization programme also helped to drive the visibility and access of the digitized collections. These include UWILinC, the UWI's single access gateway to all its resources from all four campuses, the library's website, and the online access catalogue (OPAC). They have all helped to facilitate and enable the 24/7 access. There have been requests for images to support cultural and historical displays at University events as well as for use by the UWI Museum.

There has been further collaboration with the Department of Library and Information Studies (DLIS). Library staff have assisted in the development of courses on preservation and copyright and acted as adjunct or guest lecturers in these courses. Further, DLIS students have been facilitated on practicum and for on-site classes. In addition, one graduate research paper has been completed which examined the role of the West Indies and Special Collections in graduate dissertations.

The culture of Continuing Education for staff, engendered by this project has taken root in the Library. Several other Units have followed suit and implemented programmes which call on innovative strategies in the face of scarce resources.

Way forward

Use of the digitized collections is one measure of the importance that scholars place on them. As stated earlier several publications have relied on images from the digitized collections at the UWI Mona Library. However, new and different uses of the collections have not yet emerged. In their 2013 study, Harris and Hepburn found that contrary to expectations historians did not increase use of digitized images from their home institutions. Green and Courtney (2015) in their study maintained that humanities scholars need “effective discovery mechanisms ... and the ability to mix and reuse digital material” (698). This places the onus on librarians to encourage researchers to use the digitized collections. Recognising this responsibility, the librarians at UWI have undertaken to include material in the digital collections in Information Literacy sessions to undergraduate students. Liaison librarians to academic departments have been mandated to include special collections material in their course-specific sessions to both graduate and undergraduate students. Several of these sessions facilitated by liaison librarians are attended by faculty members as well. Green and Courtney (2015) have emphasized the importance of discovery in the use of digitized collections. Consequently, the Library has placed emphasis on the creation of metadata, and collaboration with faculty towards this end, has resulted in the improvement of access. In addition, Special Collections policy now addresses the publicising and promoting of collections. In this regard online and print exhibitions featuring the digitized collections are created as soon as processing has been completed. The Mona Library has noted a decrease in the use of the print collections and a corresponding increase in the use of e-resources. It is expected that this trend will lead to use of digitized special collections. Going forward, it is expected that by targeting students as emerging scholars, the use of digitized special collections will increase. The Library’s responsibility is to ensure that it is ready to meet this future demand.

In relation to the continuation of the digitization of collections, it is felt that mass digitization may not be a solution for the UWI, Mona Library, as its collections are rich yet discreet and small. There are few very large collections. However, the potential impact of these collections on teaching and research is great. It is possible that the current pattern of treating each collection as a unique project may be the best approach with the limited resources available. On the other hand, The UWI, Mona has designated 2016-2017 as the year of entrepreneurship (McDonald 2016). The Library may investigate the possibility of using its expertise to implement mass digitization projects for other national (and possibly regional) cultural institutions. In this case investment in a purpose-built facility may be a necessity and innovative ways of addressing funding issues, including grant writing and deep collaborations, remain possible options.

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