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## TOWARDS AN APPRAISAL AND SELECTION FRAMEWORK FOR THE DIGITAL RECORDS OF THE AMERICAN UNIVERSITY IN CAIRO (AUC)

### Abstract

*The American University in Cairo (widely known as AUC) with its University Archives and Records Management is currently under the process of developing a framework for the appraisal and selection of digital records (including e-mails and records kept in physical storage media e.g. floppy disks, CDs). The purpose of this paper is to describe the process of the creation of digital appraisal and selection framework for the AUC University Archives. Particularly, it presents what has led the archivists to rethinking their appraisal system concerning digital records, the differences between appraising paper and digital records, the challenges for the appraisal of digital records, and the criteria behind the components of the AUC Archives appraisal and selection framework. The approach used in this research for the creation of the digital appraisal framework, included mapping and assessment of the current AUC's University Archives and Records Management appraisal and acquisition tools, and it was followed by two pilot projects for the acquisition of digital records of a closing university department and of a departure employee from a critical university senior administration office. The pilot projects were useful for understanding of practical challenges during the digital appraisal process. Briefly, the results from the process of designing the digital records appraisal at AUC have shown that the appraisal and selection strategy for digital records are not based merely on content and contextual analysis, but also include factors like media types and file formats, etc.*

**Key words:** Appraisal, American University in Cairo, Floppy disks, Emails, Digital files

## VERSO UN QUADRO DI VALUTAZIONE E SELEZIONE PER I DOCUMENTI DIGITALI DELL'UNIVERSITÀ AMERICANA DEL CAIRO (AUC)

### Sintesi

Gli archivi e la gestione dei documenti dell'Università dell'Università americana del Cairo (ampiamente nota come AUC) sono attualmente in fase di sviluppo di un quadro per la valutazione e la selezione dei record digitali (compresi i messaggi di posta elettronica e i record conservati su supporti fisici di archiviazione, ad esempio floppy disk, CD). Lo scopo di questo lavoro è descrivere il processo di creazione del quadro di valutazione e selezione digitale per gli Archivi di Ateneo dell'AUC. In particolare, presenta ciò che ha portato gli archivisti a ripensare il loro sistema di valutazione per quanto riguarda i record digitali, le differenze tra la valutazione dei record cartacei e digitali, le sfide per la valutazione dei record digitali e i criteri alla base dei componenti del quadro di valutazione e selezione degli archivi dell'AUC. L'approccio seguito per la creazione del quadro

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di valutazione digitale è stato una mappatura e valutazione degli attuali strumenti di valutazione e acquisizione degli archivi di Ateneo e della gestione dei record dell'UAC e due progetti pilota per l'acquisizione di archivi digitali di un dipartimento universitario in chiusura e di un impiegato di partenza da un ufficio amministrativo senior dell'università critica. I progetti pilota sono stati utili per comprendere le sfide pratiche durante il processo di valutazione digitale. In breve, i risultati del processo di progettazione della valutazione dei record digitali presso l'AUC hanno mostrato che la strategia di valutazione e selezione per i record digitali non si basa solo sul contenuto e sull'analisi contestuale, ma include fattori come i tipi di supporto e i formati dei file, ecc.

**Parole chiave:** valutazione, Università americana del Cairo, Floppy disk, Email, File digitali

## VREDNOTENJE IN IZBIRNI OKVIR ZA DIGITALNE ZAPISE AMERISKE UNIVERZE V KAIRU (AUC)

### *Povzetek*

Ameriška univerza v Kairu (bolje znana kot AUC), njen univerzitetni arhiv je trenutno v fazi razvoja okvira za oceno in izbiro digitalnih zapisov (vključno z e-pošto in zapisi, shranjenimi na fizičnih nosilcih za shranjevanje, npr. diskete, CD-ji). Namen prispevka je opisati proces oblikovanja digitalnega vrednotenja in izbirnega okvira za Univerzitetni arhiv AUC. Predvsem predstavlja tisto, kar je arhiviste pripeljalo do ponovnega premisleka o svojem sistemu vrednotenja digitalnih zapisov, razlike med vrednotenjem papirnatih in digitalnih zapisov, izzive za vrednotenje digitalnih zapisov in merila, ki stojijo za komponentami okvira za vrednotenje in selekcijo arhivov AUC. Pristop, ki smo mu sledili pri oblikovanju digitalnega okvira vrednotenja, je vključeval mapiranje in analizo trenutnih orodij za vrednotenje in pridobivanje digitalnih zapisov za univerzitetni arhiv, kot tudi upravljanje dokumentov AUC ter dva pilotna projekta za pridobitev digitalnih zapisov zaključnega letnika univerzitetnega študija. in odhodni uslužbenec iz kritičnega univerzitetnega višjega urada. Pilotni projekti so bili koristni za razumevanje praktičnih izzivov v procesu digitalnega vrednotenja. Na kratko, rezultati postopka oblikovanja vrednotenja digitalnih zapisov na AUC so pokazali, da strategija vrednotenja in izbire digitalnih zapisov ne temelji le na vsebinski in kontekstualni analizi, temveč vključuje dejavnike, kot so vrste medijev in formati datotek itd.

**Ključne besede:** Ocena, Ameriška univerza v Kairu, diskete, e-pošta, digitalne datoteke

## THE AMERICAN UNIVERSITY IN CAIRO (AUC): AN OVERVIEW

The American University in Cairo, widely known as AUC, was born out of the work of the existing American Mission in Egypt, which operated in the region from the mid-1850s. Founding AUC, was the idea of Charles Watson, who grew up in Egypt and was the son of American Protestant missionaries. Watson believed that because in Egypt at that time there were only two universities, there was a need for a third institution, a college and university that prepared boys for further education in Europe or America, while promoting Christian ideals (Humphreys, 2020). For this reason, the establishment of the AUC had initially promoted as the creation of a Christian University in Cairo (A Christian University at Cairo, 1917)

The AUC's doors opened in 1919 and it was located at the heart of Egypt at Cairo's main downtown square – now known as Tahrir Square (see Figure 1).

During the first two decades of AUC's operations, the student body was coming from the lower rungs of the aristocracy and was consisted of students from Greek, Armenian and Jewish communities, who were overrepresented in the student body by the 1980s (Murphy, 1987).



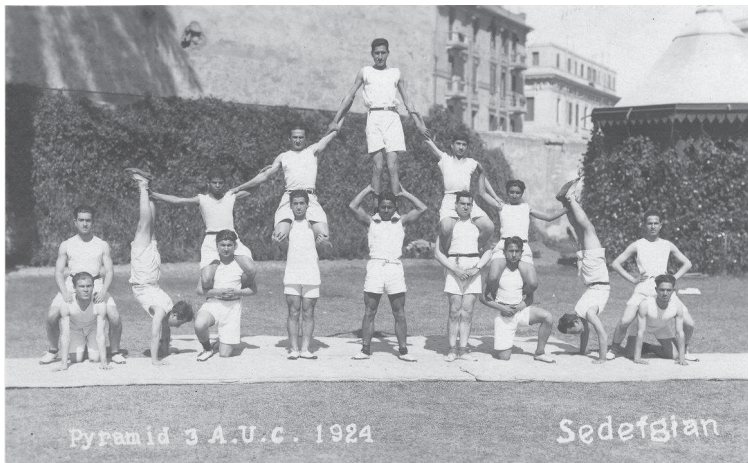
**Figure 1: General View of The American University in Cairo Main Building, Tahrir Campus (The American University in Cairo Rare Books and Special Collections Library, 1920s-1930s)**

AUC in its early years delivered educational innovations to Egypt, from hands-on laboratory work, to the enrollment of a female student in 1928 (Murphy, 1987). Another innovation was college athletics, unknown in Egypt until introduced by AUC in the early 1920s (see Figure 2).

Since the 1950s, the AUC has established concrete relations with the US and Egyptian government, by getting funding from the US, and with Egyptian politicians and US diplomats serving the University from faculty and senior administration positions (Murphy, 1987).

While by the 1980s the student body presented a national and religious variety, today Muslims are overrepresented to the student community. From the 350 students in the 1930s, today the university numbers more than 6000 students, predominantly coming from the Egyptian and Middle East Elite.

Since 2008, the AUC moved to the New Cairo Campus, where it is located until today.



**Figure 2 The American University in Cairo Students in a Pyramid, 1924 (The American University in Cairo University Archives , 1920s)**

## THE AUC UNIVERSITY ARCHIVES

The American University in Cairo University Archives (AUC University Archives) started out its existence as an outsider. In the early 1970s a professor searched for archival sources to support writing a history of the university, and found boxes full of the university's records located to the roof of AUC's main building (Murphy, 1987). The Archives has since grown and found new homes, for several decades in AUC' Rare Books and Special Collections Library in a downtown villa. Since 2010, the AUC University Archives have been housed in the Library building in the New Cairo campus.

The University Archives serves as the official repository for the history and records of the American University in Cairo (The American University in Cairo University Archives, s.d.) Its holdings documenting AUC's history and contributions, serving administrative needs and facilitating research by internal and external scholars. Activities pursued toward these ends, include acquiring, preserving, and providing access to records, publications, oral histories, and other material of historical value. The University archives collects records in any format and structure which document AUC's institutional history and memory, Egyptian and Middle East social, political and educational context, and the US government relations with Egypt.

## DIGITAL ARCHIVING AT THE AUC: A DIGITIZATION UNIVERSE

What is currently considered as digital archiving at the AUC University Archives and what particularly is taken place in practice is the systematic digitization of paper records with cultural and archival value (including architectural drawings, photographs, institutional records, newspapers and magazines) and audiovisual material, mainly slides, tape reels, oral histories recordings and video cassettes. The digitized collections are made available through the Rare Books and Special Collections Digital Library (The American University in Cairo Rare Books and Special Collections Library, s.d.). The digital preservation system is in a very rudimentary stage, without a dedicated digital preservation system and preserving solely digitized collections (on the system the AUC University Archives use for doing digital preservation, see Schmid, 2021). For the archiving of the AUC Web sites, blogs and social media is used the "Archive-it" based on the Internet Archive service (The American University in Cairo, s.d.)

The digitization orientation is clearly reflected to current Archives and Records Management Framework of the University, namely the *University Archives Holding Policy* (The American University in Cairo University Archives, s.d.) and the *Records Retention Plan* (The American University in Cairo University Archives, 2009). Particularly, the two documents stress the importance of the audiovisual material and the focus of the University Archives to the acquisition and digitization of this type of material.

## **TRIGGER FOR A DIGITAL RECORDS APPRAISAL AND SELECTION FRAMEWORK AT AUC**

Very recently, it became obvious that the AUC University Archives have had to start dealing with the born digital material. Primarily institutional new needs place in the center of AUC University Archives' priorities the collection and preservation of born digital records. After the announcement of the new university strategic plan 2018–2022, the university started experiencing a rapid digital transformation, with the growing digitization of its business and academic processes (The American University in Cairo, 2019). In the advent of digitalization of the university, the AUC University Archives considered their tools and processes inadequate to reflect the current reality of the production of continuous increasing volumes of digital information. As a result, the university archivists took a series of actions for the alignment of the AUC University Archives with the digital transformation needs of the university. They created a digital preservation planning, new records management policy and retention schedules, however, the most challenged one was the design of a digital records appraisal and selection framework.

With the paper records, the appraisal and selection process was an easy task. The archives and records management staff took appraisal decisions based on the content of the series of records, had easily access to the centralized filing rooms of university departments and offices, where all semi-active and inactive records are stored, and appraised the paper material directly without the need of equipment.

For the appraisal and selection of the digital records, the AUC University Archives took into consideration other factors such as the needed equipment for the process of the born-digital files or magnetic media, the files formats and the condition of the media, the willingness of the university offices and departments to transfer digital files to the Archives.

As a result, the AUC University Archives proceeded with two pilot projects in two different departments for investigating and defining appraisal and selection criteria for digital records. The AUC University Archives followed a top down approach starting from the context and content analysis in the pilot project one, and moving to a folder and file level analysis in the pilot project two.

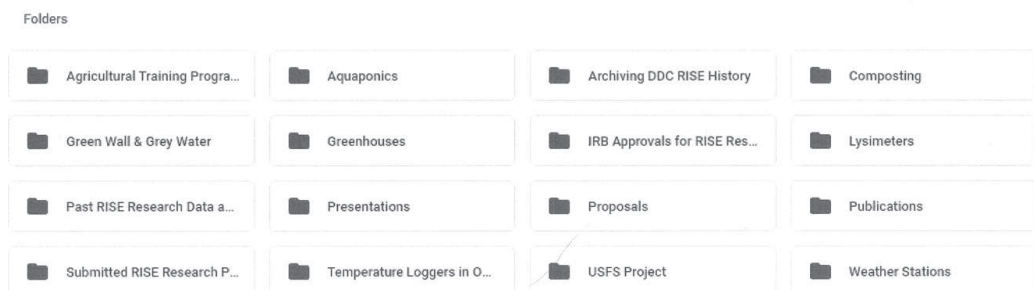
### **PILOT PROJECT ONE: ARCHIVING OF THE RECORDS OF THE DDC/RISE DEPARTMENT**

The pilot project one was about the archiving of both paper and digital records of the Research Institute for a Sustainable Development, known as RISE, which was scheduled to close on May 2019. Many of the records were coming from the period of the RISE predecessor's department, the Desert Development Center or briefly DDC. The time framework for the project was from September 2018 to May 2019.

The majority of the records were in paper format, both publications and documents. For the appraisal and selection of DDC/RISE paper records was established a specific set of criteria based on the needs of the context and content of records of the DDC/RISE. The framework was based on a combination of a context analysis of the DDC/RISE, the records type which were created by the department, the AUC Archives Collection Policy,

the Records Retention Plan and the Library Collection Policy. It was finally established 22 content-based criteria (The American University in Cairo University Archives, 2020).

For the appraisal of the digital records, there was the desire to be used the content-based appraisal criteria, but the question was what digital records it was going to be archived and from whom. So, it was decided to be followed a hierarchy strategy by archiving the digital records of the department's leadership people, namely the records of the DDC/RISE Director who was preparing for retirement at that time and the records of the Head of the Research Unit. The RISE department had also a shared google drive that was archived as well. From the DDC/RISE Director, it was archived his local disk drive and his email account. Particularly, for his email account it was giving to him guidelines to clean up his account from a list of ephemeral and not archival interest material (e.g. personal emails, advertising material, Listservtraffic) (The American University in Cairo University Archives, 2020). From the Head of the Research Unit, it was archived her external hard drive and local disk drive, and the shared google drive of the department, which was the main owner of the account (see Figure 3). The tools were used for the digital archiving was the DataAccessioner<sup>2</sup> (David M. Rubenstein Rare Book & Manuscript Library, s.d.), for migrating the digital records from the department servers and external drives to the AUC University Archives servers, and the ePADD<sup>3</sup> (Stanford University's Special Collections & University Archives, s.d.) for appraising, arranging, describing and preserving, email records. The transfer of digital data from the DDC/RISE to the AUC University Archives was the first acquisition of born digital material and its size was around 48.08GB.



**Figure 3** Research Institute for a Sustainable Development Archived Shared Google Drive, 2019 (The American University in Cairo University Archives, 2019)

## PILOT PROJECT TWO: ARCHIVING OF THE RECORDS OF THE LLT DEAN'S OFFICE

The pilot project two was about the archiving of 43 floppy disks and CDs of the Learning and Library Technologies (LLT) Dean's Office. The time framework for the project was from June 2021 and it is still in progress, with almost half of the material (22 floppy disks and CDs) have been processed so far.

The material was acquired from the Assistant Dean of the Library immediately after her retirement in May 2021. The floppy disks and CDs had been created by the Associate Dean of the LLT and the Library Associate Director in the 1990s. Because the LLT Dean's office was a very important office as a senior management office, it was decided to pro-

2 The DataAccessioner is a free and open source tool developed by the Duke University Rare Book, Manuscripts and Special Collections Library, for migrating data off disks and onto a file server for basic preservation, further appraisal, arrangement and description.

3 The ePADD is a free and open source tool developed by the Stanford Libraries, for supporting the appraisal, processing, preservation, discovery, and delivery of historical email archives.

ceed with a folder and file level analysis, or a “bottom-up” appraisal (for “bottom-up” up digital appraisal, see Sloyan, 2016). For this reason, it was established three main appraisal criteria for selecting files, namely the content, the medium type, the access condition, and the file format condition. Then, it was created an appraisal and selection spreadsheet template for tracking all the relevant information (see Figure 4).

The DROID (Digital Record Object Identification) was employed as a tool for identifying file formats, blank files and dates (The National Archives, s.d.). Although the digital files were old, with the overwhelming majority being in Microsoft Word 97–2003 Document file format, were easily opened and in a good state. In addition, all the CDs and floppy disks were in a very good condition, so all the data was well retrieved and processed.

One of the biggest challenges of the bottom- up appraisal was the file naming. The majority of the files and folders did not have meaningful file names and its was deemed as necessary to go through a file to file analysis for understanding their content. Additional spreadsheets were created for researching and providing explanations of the file names where written in an abbreviation form or without meaningful titles (see Figure 5). Furthermore, the bottom-up appraisal was proved a time-consuming process taking 15 working hours of processing the material, the 22 floppy disks and CDs, with a total data size 7MB.

Medium Type	Medium Type Title	Content (Folders & Files Naming, Content of the Files)	Number of Folders and Files	File Size	Dates	Access Condition of the Medium Type	File formats	File Formats (corrupted or not opened)	Folders For Disposal	Folders for Permanent Preservation
Floppy Disk	FDisk LibraryBudgetMaterial	Library Selectors Appendix, RFPFINAL (Request for proposal for an automated integrated library system)	1 folder, 8 files	1.38MB 21KB 334KB	2000	Good	XLS (MExcel 97 Workbook, v.8), DOC (97-2003)	No	No	Yes
Floppy Disk	FDisk RFPLibraryAutomatedIntegratedSystem	Library Reassessment (current and future salaries planning)	2 files	73KB 446KB	1995	Good	DOC (6.0/95)	No	Yes	No
Floppy Disk	FDisk LibraryReassessment		1 file	37KB	11/10/2003	Good	XLS (MExcel 97 Workbook, v.8)	No	No	Yes

**Figure 4 Library and Learning Technologies Dean’s Office Digital Files Appraisal and Selection Spreadsheet Template, 2021 (The American University in Cairo University Archives, 2021)**

FileName (Original)	FileName(Explanation)
Christiane599	Letter to Christiane on May 1999 from Dean Sahira regarding the retirement of Mary and acquisition topics
CIACCIO	Nicolas Ciaccio, Professor in Sociology, Anthropology and Psychology department who gave to the Library some books as a gift (gift books)
Circ chairs	Request for change of equipment purchase for FY2000
CLIPLEX	Not readable content
COLAPPL	Assistant Director for Collections Management Application (Cover Letter)
COLBUD	COLLECTIONS BUDGET REQUEST Summary
COLCOM2	The Library Collections Committee (Agenda)
COLUPG	Collections Upgrade (memo/email for allocation of money for the purchase of books)
COMPAC	Memo /Letter to the VP for Finance and Administration for the purchase of Compact Shelving

\* Author will provide the title ASAP.

## CONCLUSIONS: TOWARDS A DIGITAL RECORDS APPRAISAL AND SELECTION FRAMEWORK AT AUC UNIVERSITY ARCHIVES

The two projects led to a draft appraisal and selection framework for the digital records of the AUC consisting of four main pillars. The first pillar is a contextual and content analysis of the university functions and records, assessing important for the university administrative, academic and research operations offices and departments, and identifying those offices for acquiring digital material for permanent archival preservation. For instance, it is going to be established a systematic collaboration for the acquisition of digital material from key governing university offices like Office of the Provost, Office of the President, Vice Presidents Offices, Deans' Offices, and other offices with production of significant institutional information, such as Office of Communications, Alumni Office.

The second pillar is to identify those people occupying leadership positions and other key positions across University for getting digital data directly from them. This is mainly an idea coming from the US National Archives and Records Administration (NARA) and specifically the Capstone Approach for archiving the emails of Federal Agencies. According to the Capstone Approach, the NARA archive the emails of senior officials of the US Federal Agencies (White Paper on The Capstone Approach and Capstone GRS, 2015). The university archivists think to use Capstone not only for email accounts but also for other digital records kept by university personnel in leading positions.

The third pillar is the media type (e.g. floppy disks, CD/DVDs, external hard drives). The assessment should take in place for the condition of the medial type, whether it can be opened or not, and the resources, equipment and expertise needed for the processing of some media types like microcassettes.

To conclude, the final pillar is the file formats. Many US universities and other archival institutions around the world have established rule of accepted file formats for transferring to archives. The next step is the assessing of the condition of the files formats, particularly whether there are the expertise and equipment to open or restore some obsolete file formats.

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