Development of a Special Collection of Individual Articles at ATMA: A New Trend in Scholarship along the Information Highway

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ABSTRACT

Special collections are gaining importance in their services to research and scholarship. This paper attempts to provide a practical model to building an individual article collection at ATMA (Institute of the Malay World and Civilization) UKM as one of the effective ways to demonstrate the value of a special collection in the manner that addresses the strategic concern of the research institute. Over the years, new types of paper-based publications have developed and new media and formats, from microforms to audio-visuals to digital publications, have come into regular use. The shift to digital information in the 1990s has affected collection development. With the availability of full-text data bases, come a number of different perspectives on how a research collection should be developed, managed documented, retrieved and preserved. In this light, the traditional special collection development need to be changed to respond to the emerging paradigm of individual article service. In this paper, we will not only look at the physical characteristics of Malay studies resources, but also review past practices in the collection development, and examine advances in documentation and preservation technologies that are being applied today in relation to the individual article collection being initiated at ATMA (Institut Alam & Tamadun Melayu). We intend to touch on issues related to its collection development, access, technological requirements and preservation. We want a system that can help researchers gain rapid access to the documents they require. As they need to have access to specific articles, the general collection in a special collection such as PATMA (the library of ATMA) cannot meet their needs. Thus, a special collection offering a new kind of access should be considered, developed, upgraded and even digitized for the electronic future.

Keywords: Collection development, individual article collection, digitization, preservation, data base, digital age.

INTRODUCTION

IT has brought revolutionary changes to the trends in collection development and information seeking. In the late 1980s, a new era of full-text searching dawned upon us. The rapid appearance of electronic journals has called for changes in search strategy. The main purpose of introducing individual article service is to ensure a speedy response to client's requests for articles. Students and researchers prefer to search for specific articles intelligently, rather than browsing books or journals. The traditional collection becomes a nightmare to researchers looking for particular articles. To assist them, fundamental changes need to be introduced to the traditional collection. The library's established principles for the development and management of research collections and for delivery of supporting services need to be expanded and modified to accommodate the new demands. This expansion would inevitably lead to modifications of the established policies and practices. The advent of digitized information and the emergence of 'package deal' have caused the original tasks of collection development to move toward the concept of easy access to the relevant information and materials, where thousands of full-text individual documents are grouped and made easy accessible. This represents a drastic change from the traditional single collection of books, journals and other materials in the related subject area.

Since the 1990s, there has been a proliferation of full-text data-bases. In 1987, the number of full text titles was small. DIALOG then had only 355 titles. These electronic full-text databases, many of which are available for subscription, either solely, or as part of package-deal, through CD-ROM, OPAC or on-line systems, have provided researchers the unprecedented opportunity to access individual articles. They allow keyword searching rather than searching for assigned subject headings. The easy access to digital and packaged documents prompt us to ponder over these two questions: Can the traditional approach to collection development fulfill its missions? What is the impact of it on a library's collection development? In relation to that, Hull (1984: 168) comments further:

End-users like full-text to find answers to questions, not to find everything there is on a topic. The librarian is worried about the completeness of information. The end-user wants specifics. The latter like full-text for the immediacy of the answer, avoiding a wait for printouts or reprints, eliminating time required for conventional library searching and currency of information. The researchers want speed and ease of access, in a user-friendly environment.

The heart of a full text delivery system or database is the individual article. It is very obvious that the special collections in PATMA (Perpustakaan ATMA), Za'ba (special collection of Malay studies at University of Malaya), DBP (Dewan Bahasa dan Pustaka) and elsewhere reflect the traditional approach

to information and document provision. The research materials in these collections are extensive in formats and media, embracing monographs, periodicals, bibliographies, indexes, theses, archives, reports, maps and many more. They are largely paper-based, using microforms, audio-visuals, films and sound records as adjuncts. But, building and managing collections nowadays are really always about choices. Choice between a special collection and individual article collection, between paper and other media, is based on factors such as ease and frequency of use and the availability of the appropriate equipment. Deciding factors, one way or the other, will include content, ease, speed, effectiveness of use, the likely volume of use, network access from remote locations, license restrictions, long term maintenance, provision and upkeep of hardware, software and network connections, the availability of staff with the requisite skills and costs. Thus, since the 1990s, the range of research materials in medical, scientific, legal and economic fields in the electronic format is extending with ever-increasing speed. Current information in these fields, except in the Malay studies, is published more and more in full text and electronic form, in addition to new methods of disseminating information which include electronic discussion groups, conferences, bulletin boards, Usenet and news-groups, but again not in the Malay studies. The proliferation of full-text databases has enabled more researchers in libraries to access more materials at a lower cost than outright ownership or traditional interlibrary loans. Digital technology enhance access, resource sharing and preservation. But, given the limited commercial value of materials in the Malay studies as compared to NEXIS for legal and law, INSPEC and IEEE for engineering, ABI-INFORM for business and management, and MEDLINE for medicine, only certain libraries are interested in building such a collection. In a rush to provide the heavily used and commercial lucrative current important reference materials, much lightly used research materials in the Malay studies have been bypassed by commercial institutions in digitizing them. Because of the growing magnitude of these materials and urgency to have easy access to such materials, there is a great need to develop a special collection of individual electronic articles. The problem of digitizing documents on Malay studies requires a working framework: how to select, what materials to digitize, and why, how to preserve them and make them easily available for an indefinite number of years. Here, digitization opens the door to better access and preservation. It is a good strategy for coping with the future. Berring quotes Douglas van Houweling (1998:9): 'The future is a seamless, easy-to-use information universe'.

COLLECTION DEVELOPMENT: FROM AREA STUDIES TO
INTER AND MULTI-DISCIPLINARY STUDIES

Until today, research materials in the Malay studies/world appear primarily in the printed media, with academic exercises, reports, theses and conference papers presented in various avenues and formats. While many of these sources are traditional library materials, Malay studies also rely heavily on maps, slides, technical reports and oral literature. In other words, materials pertaining to Malay studies come in a variety of formats, media and languages. A large portion of these materials have been documented in various bibliographies, indexes and abstracts as listed in Ding (1981), Kaur (1993), Kemp (1998), *Katalog Koleksi Melayu* (1980), *Excerpta Indonesica* (1975-) and *Index to periodical articles* (1984-), among many others. The growth of various bibliographies and listings, especially in the 1970s and 1980s, represents a huge and successful professional effort in bibliographical control of these research works by different scholars in different places from time to time. Contained in a myriad of sources and forms, much of these materials remain relevant today. But, ironically, they were printed in highly acidic paper, which is now brittle and yellow. Thus, we are in a situation with materials becoming increasingly fragile. In the last decade, preservation was through photocopying and microfilming. Today, it is digitization. It is evident that digitizing technology has enabled researchers to gain access to more information that would otherwise be stored in inaccessible original medium or location (Wishard and Musser 1999: 135). Though difficult to preserve, traditional preservation techniques have been applied to these materials with some success, for example, the microfilming of newspapers. In many libraries, deteriorating materials have been rebound or stored in acid free boxes, while others are kept in special collections. In other words, photocopy is widely used as a viable option in preservation and improving accessibility. It is this last method that we use as our first step towards building a collection of some 50,000 individual articles related to Malay studies/ World. We regard photocopying as a time-honored method for preserving the intellectual contents in view of the rapid digital technology obsolescence and media fragility. Key questions here include the following:

1. Do we have the legal right to make photocopies?
2. Can we obtain legal permission to do what needs to be done?
3. Can we share the merits of a fair amount of photocopying for research and scholarship?

In terms of preservation, microfilming has the advantages of higher resolution, accepted standards and a known archival life; but the documents captured in black and white has resulted in the loss of the full integrity of

many of the images, while digital resources offer superior access to data. Despite digital technology enhancing preservation and access to materials, problems still exist. The major ones are the high costs of conversion, rapid hardware and software obsolescence, and the continual recopying of materials to prevent them from becoming worthless once technology becomes obsolete. The preservation of electronic information into the indefinite future requires it being recopied from old to new technologies as they become available and as the old technologies ceased being supported by vendors and the user community (Lesk 1997: 184). The rate of technological change exacts a heavy toll on efforts to ensure the longevity of digital information. It is said that the usable life span of digitally stored materials is only 5 to 10 years (Wishard & Musser 1999, quotes Conway 1996). Here, the problems of preserving and accessing digital information will be enormously more complex than the print. Many scholars have reacted negatively to such a development. Law (1998: 300) adds that:

We have reached a position where we are building our electronic house on shifting sands. If permanent global access is to ensured, now is the time to create forums and activities where can be replicate in the coming years ... the success we have achieved in managing access to the printed word over recent decades. We must take the legacy of UAB and UAP and transpose them into a new vision for the electronic future. But visions are neither easily developed nor readily translated into action.

Nevertheless, many of the traditional facsimile reproduction technologies are still relevant in preserving valuable materials, though not in the original formats. They are used mainly for making alternative service copies to reduce physical wear and tear on originals and widen access to the readers.

Our major concern is not the survival of the physical objects, or whether the copy is just as good as the original (Lesk 1997: 176, 184), but to ensure researchers can have an improved access to the intellectual contents of the documents. We modify slightly the established principles in documentation and preservation. The materials are selected according to the relevance of their contents to the research interests and needs of the identified and potential user community. The scope of the collection is encompassing, regardless of languages, chronological periods, places of publication. At the end of the day, collection development and documentation are about content and accessibility. However, there is problem of easy and quick retrieval of both the relevant information and the material. Solving this problem will require skills in defining search problems and applying search strategies and the competence to the available search tools. In undertaking this individual article project, we have to set priorities and cannot afford to lose sight of the rational sequence of selection decisions. They are:

1. Identifying and collecting important and valuable articles to ensure their authority and their enduring quality and significance to scholarship.

2. Scanning printed indexes and abstracts and, if necessary, and bibliographic data bases, to ensure timeliness and continual growth.
3. Indexing them by using keywords to determine the level of access required by scholars not skilled in IT.
4. Digitizing them, only when feasible and copyright permissible, for long term preservation and wider accessibility.

Our initial focus of attention is to identify and collect as much as possible of the research articles which seem destined for oblivion in many Malaysiana or Special Collections in Malaysia and libraries elsewhere. We intend to include materials judged important to scholarship for reasons other than high demand. We intend to include materials based on their merits and utility to scholarship, and not on the basis of ease in getting them. The selection of documents is done on two basis: expected demand and perceived value.

Documents are collected in accordance to the profiles of current researchers' interests at ATMA, as well as their perceived value for research in the future. We allow demand to dictate the development of the collection, while attempting to follow some system of priorities. Materials collected are expected to cover all aspects of Malay studies, and not confined to Malay language, literature and culture. This is not a straight forward task. Demas (1988: 156) stresses that identifying works of potential current value and or long-term interest would require considerably more knowledge, skill, judgement and discrimination. This work is made more difficult as we have to rely on various indexing and abstracting tools for help. This reliance on secondary sources is because of a number of reasons. We see no good reason to limiting our coverage to the stock in PTSL (Perpustakaan Tun Seri Lanang) or PATMA, in UKM, which are restricted by the lack of funds and manpower, thus unable to cope with the ever increasing output of research materials published in printed form or more so electronically. On pure practical ground, we will make full use of the interlibrary loan service to get documents not available locally or within the country. In short, we identify, collect, sort, label, index and make them easily accessible. Due to the constraints, we hope libraries will undertake the responsibility in preserving materials in their original formats for the benefit of users. We cannot do what is beyond our means, including digitization, which is developing very quickly, but is largely of commercial concerns.

It takes years of hard work from many people to build a sizable special collection. But, Greenberg (1998: 51) notes it is never near at hand for any library to collect everything that scholars are ever likely to need or meet all their expectations. This is not only because of the ever-expanding media and formats of materials, but also the myriad of requirements from researchers. As individuals, they are drawn from different backgrounds, with different

characteristics, personalities, and specialities. Over the years, the ambit of scholarly work in Malay studies has expanded from area studies to inter and multi-disciplinary studies. As it is not possible to meet all the needs of a wide range of researchers, our aim is to undertake what is feasible within our constraints. We hope to have a near comprehensive coverage of individual articles related to the academic research programs at ATMA as our patrons are researchers who need a wide range of materials, and not just some standard works. This necessitates us to collect as widely as possible, meaning we have to move beyond the local perspective to national, regional and even inter-national to include whole field and discipline concepts. But, due to tight finances and inadequate staff, we have to prioritize, and focus our attention on defining strategies while remaining flexible with some specific short and long-term objectives. Such strategic planning is of paramount importance as we have to know where we stand, and where we intend to go and think boldly since things are changing all the time. We have to provide materials to researchers not only just-in-time, but also just-in-case. Although digitization can combine preservation for the future with access for the present, it is beyond our immediate means. Nevertheless, we have to include such a possibility in the long term planning. The reason is that decisions taken at any one stage will have ramifications for decisions at other stages (Jephcott 1998: 49).

In the planning phase, decision must be made as to what materials are to be collected, what technology to be used, and whether the necessary technical expertise and support are available on-site or elsewhere. In deciding what materials to be included, considerations must be paid to issues like copy-right, the type of media for storage and preservation, physical conditions of the items and the availability of surrogate elsewhere. Having considered the above, attention needs to be directed to funding sources, to estimate costs and assess how and from where the funds may be secured. Successful collection development requires an examination of the needs of the researchers, as well as new ideas from technological development, and trends in information retrieval. Transforming a general collection to a special collection requires drastic changes in collection management policies and allocation of financial and staff resources. As the objective of a special collection is to provide researchers with easy access to documents, we should be positive and re-examine the criteria for selection of materials accordingly.

THE NEED FOR AN INDIVIDUAL ARTICLE COLLECTION: NEW TREND IN SCHOLARSHIP

Research libraries over the world have played a pioneering role in building special collections in various subjects and area studies. These special collec-tions, with the cooperation from publishers who have for years packaged works

in way to support and assist research by scholars, have the power to drive
scholars' imagination wild and stimulate their appetites for everything within
the subject areas. These packages, ranging from the table of content, division
of chapters, subject headings or footnotes in various chapters, indexes and
abstracts in the past, to databases in CD-ROM and pathfinders in the Internet
– noticeable new trends in information retrieval, have enabled researchers to
navigate through enormous collections of materials. But, scholars and
researchers of Malay studies have not enjoyed their fair share of the benefits
derived from such electronic databases, even though Malay studies have
expanded exponentially to become a inter-disciplinary and multi-disciplinary
scholarship. To assist them in speeding retrieval of articles, effort is therefore
made to provide them with easy access to articles in books and journals,
modeled on the current full-text databases, taking into consideration the
following:

1.   The proliferation of new scholarly work, mainly journals and books,
2.   New scholarly work is more subtle and complex than such broad catego-
     ries implied in the past,
3.   Malay studies scholarship has expanded exponentially to include new
     areas, ignored in the past, to become inter-disciplinary and multi-
     disciplinary scholarship,
4.   The use of computer and databases has become a pre-requisite for
     research and scholarship,
5.   New technologies are already making it not only much easier for scho-
     lars to find what they need, but also they need more and more diverse
     materials than they have ever needed before.

     Since the emergence of CD-ROM databases in the 1980s, libraries are given
the model to redesign accessibility to individual articles in books and journals
for the first time in history. Realizing that constitutes a new service oppor-
tunity, we at ATMA are increasingly goaded to develop the desired rapid
delivery of individual articles service, after noticing that such expectations
may exceed PATMA's present ability to deliver. In other words, after 30 years,
scholars still cannot access individual articles contained in books or journals
or non-book materials in PATMA easily and quickly. They have to go from one
collection to the other. After scanning GEMILANG (the name for online cata-
logue in PTSL) looking for specific articles, they have to play a hide-and seek
game, which is sometime a nightmare, in looking for specficic articles in these
different collections. Collections, whether special or general, are not too useful
if the researchers cannot locate the wanted materials, easily and quickly, without
having to consult separate printed or typed or hand-written catalogues, or
separate online databases. They do not need the whole collection. They do
not want to collapse under the weight of data, but only the relevant docu-

ments. They also want quick access to the documents, rather than bibliographical citations or abstracts only, after experiencing the rapidity of electronic access. They are expecting more than what the present PATMA library can deliver.

Established and well-known scholars are also information experts in their own right, because they know what is the best. They want an ideal user-centered library. Even if the librarians understand what the researchers want and how to provide the documents to them, there is still the challenge of how to do it. In the initial stage in the development, we have to ignore the sophisticated digitatization technology, but maximize photocopying technology to build up a sizeable collection of individual articles on the Malay studies. This means that our model presently is not digital information in an electronic environment, but a collection of photocopy which will be furnished with keyword and phrase indexing. Later on, these articles can be scanned and made more easily accessible over a network. In the meantime, PATMA must continue to develop and expand its collection to complement what we are doing and vice versa. As the library grows in size and complexity, it is getting more difficult to gain access to the particular article in the collection. This explains our increasing interest in collecting and documenting as much as possible individual articles in Malay studies in one location. The key objectives of this project are:

1. To provide direct access to specific articles, thus improving accessibility for existing and potential users and indirectly, increase the number of new users who were previously not aware of the resources.
2. To alleviate the problem of researchers now facing a decreasing number of articles normally available to them following cut in library budgets.
3. To facilitate ease of use (especially for inexperienced users) as searching can be done through authors, keywords and phrases in natural language, rather than the assigned indexing terms, that pre-supposes knowldege of the indexing process.
4. To enable more flexible ways to search and use the relevant materials, by providing exciting possibilities for cross-disciplinary use of the materials which had not previously emerged.
5. To help users who want to be self-sufficient and yet do not want to waste time by sustaining and enhancing personal access to research resources.
6. To develop a better document management in the sense that researchers can be kept well informed without being swamped by information and at the same time to reduce staff and researchers time in doing literature searching.

Any special collection is expensive to develop and maintain. But, the rewards will be great when the documents can be easily accessed. The photocopy collection may be criticized as anachronistic, but it is the groundwork necessary for its continual growth, regardless of changes in hardware, software and network technologies. A rich and strong base is important. It is also necessary to launch other new programs later on, including digitization, networking and the possibility of entering into a close association with other major bibliographic and documentation centers. Such a move is feasible because of the potential value of this project to OCLC, UTLAS and other databases. Our priority is to develop the collection as fast as possible as dictated by our human, financial and technological resources. But, it is difficult to move forward without sufficient staff and financial support. One way to do that is to relocate staff and money from the library, and other institutes involved in doing research related to Malay and Malaysiana studies, ie PTSL (Perpustakaan Tun Seri Lanang Library), LESTARI, (Environmental Studies Institute) and IKMAS (Malaysian Research and Strategic Studies) in UKM. This makes it all the more imperative that we work closely with a common objective. The establishment of such a service on anything approaching the scale and size of that in KITLV (The Royal Institute for Linguistics and Anthropology) in Leiden, NUS (National University of Singapore) poses formidable difficulties. Our efforts are not to challenge, but supplement and complement the others. Law (1998: 300) advises that we must take the legacy of UAB (Universal Availability of Bibliography) and UAP (Universal Availability of Publication).

CONCLUSION
ELECTRONIC FUTURE

We are grateful to all the publishers, librarians and database providers for laying the foundation for the various research collections, through their respective contributions, by capitalizing on the expansion of recorded information, made possible by the printing press, microfilming cameras, photocopying machines and lastly digital technology. Up to now, the majority of these materials is paper-based, brought together in one physical location. The principles of documentation and preservation of these materials are devised within this context, and influenced, if not dictated, by it. From where we are, the new electronic information highway is pretty intimidating. In Campbell's words (1998: 43), "this highway is actually a race track and those of us driving Model Ts are having our trouble keeping up. We know the dilemma in building the collection of research material in the electronic information age". We know too of the wonders of digital technology in paving our way to an electronic future. Advocates of electronic publications often hold that

paper-based publications will become obsolete within a few decades. On the other hand, they claim that the former offers an exceptional opportunity to speed and expand the range of scholarly communication. With electronic publications, many scholars and researchers hope that they can hear new voices or hear old ones faster and more conveniently. Electronic documents can be more rapidly searched by keywords and radically restructured. Thus, they conclude that the shift to electronic publication is inevitable. Comparing conventional technologies, Lynn (1998: 57), among others, favors digital technologies, because they hold great promise for world libraries as well as the publishing industry. They revolutionize storage, dissemination and access to information, apart from helping us to cope with the exponential growth of recorded knowledge. Digital technologies also decline rapidly in cost. But, she argues that it is not the declining costs that prompt us to shift to digital technology, but the reliability of reproduction and transmission at great distances. On the other hand, photocopies lose that quality at each successive reproduction. So do microfilms. Echoing that, Hull (1984: 170) also stresses that full-text usage will increase as conversion, storage and software technologies are refined and costs drop.

From where we stand, the fundamental issue presently is not so much what new technology to use, but how to collect as much and as fast as possible. As mentioned earlier, this individual collection will form the base from which we expect to create new product in digital form later on. Realizing that full text service is here to stay, we intend to digitize them to add value to them and to make them more accessible to a wider audience. From time to time, it is vital for libraries to introduce new services to meet researchers' needs to remain what they are. With the changing scholarship and technology separated from traditional collection development policy, individual article collection is the area where libraries can invest resources for the future. We believe that this project is a better and a more holistic way to approach the fundamental problem of the intractable problem of collecting, documenting, storing and preserving the necessary materials. In this perspective, this project can be considered as farsighted, as it can provide materials for the new and old breed of researchers. In the meantime, Greenberg (1998: 51) argues that "our collection decision will be more arduous than they have been because the range of choice is much greater".

Built in a planned way with a clearly defined objective for research and scholarship, this collection has qualities complementing one another: local research base, broad research value, high demand materials and easy-to-use. As researchers want quick and easy access to materials, there is a great need for qualitative, comprehensive and effective re-selection of individual articles from personal and library's collection. The need for a big collection of quality articles still remains a premium to scholars and publishers. It has never been greater in this networked environment, which also enhances the importance

of local collections (Demas 1998: 151). To meet the needs of researchers, this collection is developed to augment the inadequacies in the traditional special collection. This collection not only focuses on the users, but also the need to adopt technology later on to deliver documents in new ways to unseen and demanding researchers in the near future. We already know what to collect, how to store and retrieve information to serve the researchers. With money and staff, we can adapt and apply the latest technology available. For preservation, digitization is the state-of-the-art technology. It has the relative merits of scanning from microfilms and producing microfilms from scanned images. For retrieving the materials, Internet provides remote access to materials stored in other parts of the world. Thus, our presence on the Internet would be vital to our viability as another important research institute on Malay studies. The project will hopefully change the perspective of a traditional special collection on Malay studies as it hopefully to be able to provide a blue print for its development of additional services. This project would also hopefully awaken a keen interest in an area studies which has been neglected by commercial database providers. It is also hoped that however little effort we show in this project will be seen as a contribution to increase memory and diversity of materials to complement the documentation and collection building in the similar area in KITLV (Leiden) and the Library in National University of Singapore, for instance.

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