

Systems' Librarians: Unidentified but Essential in Nepalese Libraries

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Abstract :

Digital library dealt with information communication technology (ICT) infrastructures that is different from manual library infrastructure. Digital library is the growing demand in contrast to manual library, which demanded for systems' librarians or digital librarians. The collected data from seven libraries in Nepal to examine the availability of Systems' librarian manpower provided no light of hope. Those libraries were selected using convenient judgmental sampling through a short interview with currently available librarians about the concept of a Systems' librarian. Digitally skilled and responsible for digital data management personnel was defined as systems' librarians who have the necessary knowledge and skills in library software, networking, data entry, and troubleshooting of ICT-related issues. The study found that out of the seven libraries, only two had systems' librarians, yet their designation was not pin-pointedly named as 'systems' librarian'. While others lacked the required manpower. The study also revealed that there were no Systems' Librarians in any of the libraries. The respondents' attitudes and perceptions towards the Systems' Librarian concept varied, with some accepting it as adaptable, acceptable, and appreciable. The study recommended for the recruitment of Systems' Librarians in Nepal as the library's resources adopted the concept of paperless and library-without-wall. The lack of concerned manpower to look after electronic resources could lead to serious problems, and it's time for the Nepal Library Association and stake holders to advocate for the specialized manpower for the post of Systems' Librarian (also called digital librarian) and generate skilled manpower.

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Introduction:

Traditional library visualizes us with the scenario of a house occupied with books on a book rack and its associated manpower who assist us in check-in and checkout of the books. Though this visualisation might differ for each individual accordingly to the service provided by the librarian and library in their country. Also, visualisation might depend on the categorization as an underdeveloped country, developing country, and developed country. After 1990s onwards the advent of information communication technology (ICT), some documents are born digital and digitized library resources, which extended the scope of the traditional library.

The availability of electronic devices and networking for being connected with the world has transformed the need of library users and the services provided by the library. Now most of the users demand the resources on their figure tip. This is possible for a library by delivering digital resources or electronic e-resources. Thus, now the concept and its services and its resources are beyond its four walls. Libraries are adopting the concept of paperless resources and library-without-wall. Such libraries with new services like 'digital assets management, institutional repository management, digital data management, information security and access control' (Barron & Preater, 2018) are the characteristics of digital libraries, smart libraries, and modern libraries. For operating above mentioned tasks, a dedicated human resource called a systems' librarian who is mainly responsible for the library's computer system is essential.

Literature Review:

The term digital libraries made an appearance during the National Information Infrastructure initiative and US national political discourse in the early 1990s (Bearman, 2007, p.223). Paralleled, the concept of a Systems' librarian was developed as the associated and dedicated manpower for it. Systems' librarian is a professional who manages, organizes, and curates digital information resources, such as electronic books, databases, and online archives. They are responsible for maintaining and providing access to digital collections, ensuring that the information is accurate, up-to-date, and easily searchable. Systems' librarians may work in a variety of settings, including academic institutions, public libraries, museums, digital archives, and corporations. They use a range of digital tools and technologies to manage and preserve digital content, such as metadata standards, digital preservation software, and search engines.

An information specialist of the Indian National Scientific Documentation Centre (INSDOC) Sreenivasulu (2000), published a paper on "The role of a systems' librarian in the management of digital information systems". It emphasized that the multimedia nature of the upcoming generation of digital libraries and its resources bring necessitates

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of a specialized type of librarian, known as the systems' librarian or systems librarian, who is solely responsible for managing and organizing the digital library and its digital contents. This requires the Systems' librarian to handle specialized tasks such as massive digitization, storage, access, digital knowledge mining, digital reference services, electronic information services, search coordination, and archive management (Sreenivasulu, 2000, p.13). They are regarded as the guardian of the information superhighway, universal digital library, system library, or global digital library. They play a crucial role in ensuring the smooth functioning of these digital resources and act as a symbiotic human-machine guru, employing their expertise and knowledge to optimize the use, sustainment and accessibility of digital information. The systems' librarian will become the guardian of digital information and will be the vehicle to preserve universal access to information.

Marion (2001) focused on the increasing emphasis on digital resources has indeed led to the emergence of systems' librarians who specialize in managing digital collections, metadata, and digital preservation. However, it is unlikely that there will be a definitive systems' librarian, as the role and responsibilities of a librarian are constantly evolving and adapting to new technologies and user needs. In addition to technical skills, systems' librarians also require strong communication and collaboration, and ICT skills to work with colleagues and stakeholders to identify and satisfy their information thirst. They may also be involved in outreach and education activities to promote the use of digital resources among their users.

Based on the introduction of digital libraries in China, due to the different nature of resources the importance and necessity of Systems' librarian was adopted (Zhou, 2005). Depending on the organization, designation positions have several names with some extent of variance in job responsibilities. This ranges from the systems' librarian or digital librarian to the institutional repository manager and now the research data manager; there are also the digital information literacy educator, the digital information specialist, and the information or digital asset manager (Cox & Corral, 2013).

It seems that Information Technology professionals can be useful and have the capability to perform such tasks. In reality, the combination ICT and Library and Information Science field knowledge is needed. Undoubtedly, IT professionals come with diverse qualifications, thereby necessitating a profound reflection on the competencies and responsibilities of systems' librarians. During the workshops held in Italy, the attendees recognized the significance of potential over various profiles such as Digital Librarian, Library Manager, and Systems' librarian (Tammara, 2007, p.232). Cox & Corral (2013, p.5-10) previously explained about the key specialists evolved in librarianship as Systems' Librarians, Electronics Resources Librarians, Systems' librarians, Repository Managers, Clinical Librarians and Information specialists, Digital Curators/Digital Data Managers,

Teaching Librarians (DIL), Digital Knowledge Managers.

The systems' librarian must stay current with technology, and keep up with the information explosion. Using digital and electronic resources, upgrading teaching methods, staying informed on new trends, assisting publishers, and creating virtual learning tools like video conferencing workshops and online resources, developing private depositories and repositories (Ralhan & Chander, 2022, p.30).

Okorigbo & Kanu (2022) study explored the crucial role of systems' librarians in the next generation of multimedia-based digital libraries. As technology advances, systems' librarians are responsible for managing and preserving vast amounts of digital content. The paper emphasizes the importance of the systems' librarian's role as the custodian of information on the information superhighway, overseeing universal or global digital libraries. It also highlights the need for specialized professional education and training for systems' librarians to manage digital information systems. The article concluded by identifying challenges faced in setting up and running digital libraries, such as accessibility, planning, and conservation of resources.

In the Cultural Heritage sectors, (Barbuti et al., 2022, p.97) forwarded a statement as Digital Transformation Era is introducing new methodologies and technologies in the workplace has increased the need to renew the existing job profiles and create new professionals with adequate digital skills called Systems' librarian.

As more information is being produced in digital formats and most are get digitized, there is a growing preference for digital forms among those involved in knowledge production, including knowledge creators, publishers, and those responsible for storing knowledge for future generations. To effectively manage digital information resources and services in libraries, there is a need for ICT-skilled library and information science professionals, specifically called "Systems' librarians". This type of specialist ICT professional is responsible for managing and organizing the digital library, as well as managing digital information resources and services using required devices (Dash, 2022). In our neighbouring country, India, in the year 2022, one hundred and three number posts of systems' librarian were advertised from different institutions (Govardhan & Bharathi, 2011), National Digital Library of India and INSDOC have such designation. Same as in Sri Lanka, Eastern University and the National Library of Sri Lanka consists of such designation. In Bangladesh, Systems Librarian at Pasco County Library, Associate Systems Librarian at Aga Khan University, Pakistan, Systems Librarian at Nanyang Technological University (NTU) libraries, Singapore so on.

Method:

Myself had interviewed seven library personnel in April 2023, as confirmed by the attached annexe herewith. Explaining the seniors of transforming libraries' resources into digital resources and hence concerned manpower should be developed and hired for the post. In this study, digitally associated manpower is that manpower who have a basic idea of know-how in the library about the library software, networking, data entry on integrated library software (ILS), and general troubleshooting of ICT-related issues and device configuration. Respondent remarks consist of three coding based on the intention and perception of the respondent regarding the concept of a Systems' librarian. Adoptable refers to those library professionals who have adopted the concept to some extents though don't have an exact designation as Systems' librarian. Acceptable refers to those library professionals who accept that it is acceptable if in future we have such kind of Systems' librarian. Appreciable refers to those library professionals who have appreciated the concept of Systems' librarian and are ready to welcome with open hearts.

Primary data was collected during library visit and library personnel interview. Further those data were condensed and presented in a simple table. The data was noted based on the information given by the library personnel with time limitations and available manpower rather than approved designation. Data were collected from seven libraries of Nepal, regarding the Systems' librarian manpower. The libraries were selected based on the convenient judgemental sampling method. During the selection of the sample, the mind was set to select the nation representing library or national body associated library. Selected libraries are the American Center (American Library), National Archive of Nepal Library, Nepal National Library (NNL), Nepal Rastra Bank Library, South Asian Association for Regional Cooperation (SAARC) Library, Supreme Court Library, and Tribhuvan University Central Library (TUCL).

Finding and Discussion:

Digitally associated manpower of the library should possess qualities such as technical skill and expertise in the use of library software, tools and technologies, should possess skills for organizing and disseminating digital resources, always be available to provide and self-troubleshoot the general issues related to information and communication system. They should have the willingness to get updated with the current and upcoming library technologies and have attended some level of digital-related training, workshop, conference, and seminar. Their main responsibilities are, using integrated library software or fully library automated software to perform automated library operation,

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doing collection entry, assisting the users with nominal information technology support, supporting users to find the available digital resources, and basic know-how to copy, paste, transfer, preserve, email the contents. Additionally, they are also responsible for editing the data, online check-in and check-out, and know different tricks for information retrieval systems on different databases.

Figure 1: *Varied aspects of systems' librarians*

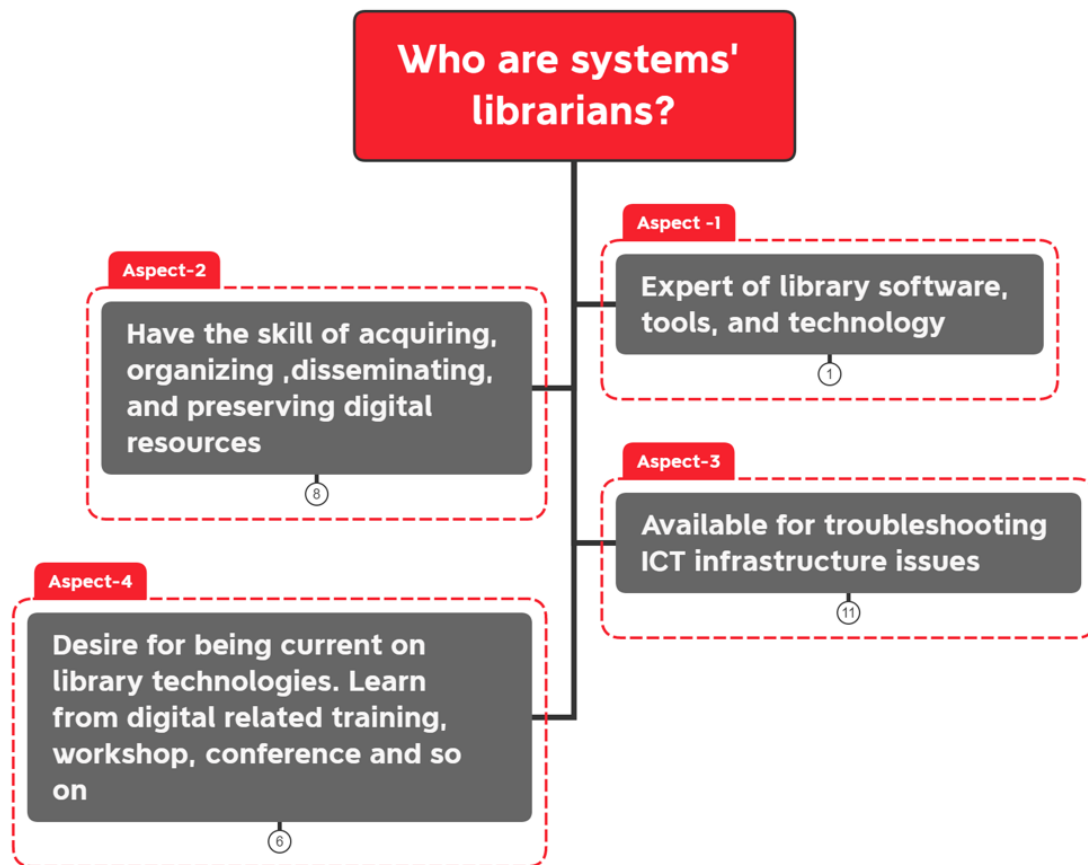


Table 1: *Distribution of Manpower in Libraries*

SN.	Name	Current Manpower	Digitally Associated Manpower
1	American Center	3	3
2	National Archive of Nepal Library	1	0
3	Nepal National Library	7	3

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SN.	Name	Current Manpower	Digitally Associated Manpower
4	Nepal Rastra Bank Library (Inactive)	0	0
5	SAARC Library	1	1
6	Supreme Court Library	2	1
7	TUCL	52	14

As shown in the above table, in American Centre and SAARC Library have three manpower and one manpower respectively, and all are digitally associated manpower. The National Archives of Nepal Library consist of one manpower, due to other administrative work of the library being unable to get associated as digital manpower. In the National Library of Nepal, three were digitally associated manpower among the seven manpower. Nepal Rastra Bank Library was popular for its immense collection on economics and its publications, but after the massive earthquake on 12th Baishek, 2072 BS., it was found on 'bed rest' and considered as the 'inactive library' herein. Similarly, another apex body of judiciary body of the country is the Supreme Court that is responsible to create checks and balances between the executive and legislative bodies of the country. However, the Supreme Court library has merely two manpower, and one is digitally skilled manpower. TUCL is an academic library, consisting of the largest number of library personnel, but among them, 14 were only considered as the digitally skilled manpower.

Table 2: *Hired number of Systems' librarian and perception regarding the concept of Systems' librarian/ Systems Librarian*

SN.	Name	Current Manpower	Systems' librarian	Respondent Remark
1	American Centre	3	0	Adoptable
2	National Archive of Nepal Library	1	0	Appreciable
3	Nepal National Library	7	0	Appreciable
4	Nepal Rastra Bank Library (Inactive)	0	0	Appreciable
5	SAARC Library	1	0	Acceptable
6	Supreme Court Library	2	0	Acceptable
7	TUCL	52	0	Acceptable

The above table shows the respondent's attitudes and perceptions of the Systems' librarian. American Centre has accepted this concept as adaptable in their institutions. In the National Archives of Nepal Library, Nepal National Library, and Nepal Rastra Bank Library, respondents were happy to welcome the concept of Systems' librarian as standing with appreciable code. The remaining SAARC library, Supreme Court Library,

and TUCL have agreed on an acceptable concept regarding the Systems' librarian.

Conclusion:

Libraries and their resources as getting transformed into digital files and formats, adopting the concept of a paperless and without-wall-library, thus the ability, skill and qualification of the librarian required to be transformed as per the need of ICT infrastructure, digital services, digital data security, and so on. The concerned manpower who looks after the resources and performs each task associated with it is known as Systems' librarians. Systems' librarian is a specialist librarian who has to manage and organize the digital library, manage digital archives, handle the specialized tasks of massive digitization work, design and perform healthy storage and its access, perform digital knowledge mining, provide digital reference services, electronic information services, and manage each piece of digital data of the library, repository and depository. In the context of Nepal, even the nation representing the national body's library also lack the Systems' librarian, though they are practising digital resources and providing digital services and carrying on the digitization process. This study predicted the serious situation that can be caused due to overflow of electronic resources and a lack of concerned manpower to look after it. It's time to think and act on it, Nepal Library Association is a parent body, and an umbrella for all library professionals, and the Central Department of Library and Information Science is the Library Information Science professional's production unit and alike institution should take the initiation for the post creation and generating such skilful manpower.

Interview Annex

Introduction Phase:

- a. Introduced myself, the purpose of the interview and the research title.
- b. Took the introduction of the interviewee with their name and the role within the library.

Body Phase

- 1) Does our library have any kind of written policy regarding preservation (digital)?
- 2) Does this library produce any kind of Digital Data? (Like PCs, Excel, Library software, MS Access, Digital Library Software etc.)?
- 3) What varieties/formats of Digital Data does this library hold? (As PDF, JPEG, Word, Excel file etc.)?
- 4) If yes, Where are the Digital Data has been stored?
- 5) Do you have the dedicated manpower to look after it (like a system librarian, IT technician for a library, Digital librarian etc.)?
- 6) What is the maximum capacity to hold digital data in your institutions?
- 7) What extent of measures have you taken for its maintenance (like breakdown, corrective, preventive, routine etc.)?
- 8) Are those digital resources easily accessible by users?

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- 9) What techniques are used behind the information retrieval of those digital resources?
- 10) What kinds of opportunities and challenges have you faced regarding DP in your institutions?
- 11) What is your perception regarding the recruitment of the systems' librarian?
- 12) Are there any limitations imposed on the Systems Librarian?

Closing Phase

- a. Summarize key points of the interview.
- b. Request the interviewee to add something if they want.
- c. Greeting the interviewee and wrapping up.

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