



## **The Urgency of Inter-Library Integration in the Digital Era** (Analytical Study of Inter-Library Integration at Hartford International University in the United State of America)

**Moh. Kamil Anwar<sup>1</sup>**

<sup>1</sup>Hartford International Unoversity for Religion and Peace, USA

e-mail: [Kamilanwar13@gmail.com](mailto:Kamilanwar13@gmail.com)

**Affan<sup>2</sup>**

<sup>2</sup>Institut Agama Islam Negeri Madura

Email: [remdennafa1202@gmail.com](mailto:remdennafa1202@gmail.com)

**Mustajab<sup>3</sup>**

<sup>3</sup>Institut Agama Islam Negeri Madura

Email: [mustajab@iainmadura.ac.id](mailto:mustajab@iainmadura.ac.id)

### **Abstract**

*Inter-library integration services are a necessity in the digital era. Cooperation in the form of system integration (database) is an important element in improving literacy in libraries. The purpose of this study is so that digital era libraries are always used as a place to forge themselves and develop global knowledge through cooperation and integration with various libraries, so that integration can be applied within the university scope in an effort to improve communication between visitors and libraries. This paper explores the inter-library integration system at Hartford International University and proposes a model applicable to Indonesian universities*

*With the cooperation in the form of inter-library integration such as at Hartford International University (HIU) in the United States of America, users feel satisfied with the HIU library service. The research method used in this study is a qualitative descriptive informative method. The results of this study are that the planning of high integration library management at the Hartford International University United State of America library and Indonesian library begins with planning the functions and objectives of the library itself and then continues with entering the database into the server.*

**Keywords:** *integration, ICT, library, HIU*

### **Introduction**

Libraries as systematic information systems will be a source of access to scientific information, especially for those involved in science and information, and sources of access to information will be good if managed (either through cooperation or even integrated databases) properly and will be more scientific, selective, of course with systematic and structured management.

The main task of the library is to serve and meet the needs of the community (in this case the academic community of universities) in the field of information and science. Services will run well if the library can collect, process, maintain and utilize library collections effectively and efficiently. The availability of adequate facilities and infrastructure and officers who have the ability, experience and skills in serving the community of service users who need information and library materials.

In order to increase reading interest for visitors, the library must have the latest innovations. Based on what researchers have collected, there are libraries that do not yet have connectivity between one library and another. This condition causes problems such as when visitors want to access book data only in one library location and this will cause dissatisfaction with library services.

The purpose of this scientific work and descriptive research is first, as an initial reference in cooperation between libraries and the integration of several different library databases with different applications so that it becomes one library access as a central data source from several library locations, especially in improving communication between libraries and the needs of library visitors on various continents;

Second, to provide input for library librarians in compiling more constructive and innovative work programs according to the needs of professionalism and competence, especially librarians who have not used database integration in their libraries.

### **Literature Review**

Integration is often associated with something that reflects a state of full unity between one part or element and another. So is the case with libraries. Ideally, libraries should be able to establish good relationships with other libraries, provide quality products and services.

Quality service is the presentation of products in the form of availability of places, facilities and access to complete, accurate, up-to-date and integrative information. And the best service is a service that can provide satisfaction to library users.

Briefly, integration is a form of unity. The term integration is often heard in general, especially when associated with conditions that are full of differences or diversity and the need for integration.

In the Big Indonesian Dictionary (KBBI), integration is a form of blending that creates a whole and complete condition. In the Citizenship Education module 'National Integration' compiled by Dr. Hudaidah, MPd from Sriwijaya University, which was reported from the Kemdikbud page, it is stated that integration is a form of effort to unite several elements into a whole unit.

#### **Types of Integration**

This is some example about library integration. Union Catalogs: A unified catalog system that allows users to search multiple library

collections simultaneously. Inter-Library Loan (ILL): Enables borrowing and lending of materials between institutions. Shared Digital Repositories: A collaborative platform where research outputs (e.g., theses, dissertations, articles) are stored and accessed. Collaborative Licensing Agreements: Colleges share access to expensive digital databases or journals. Joint Training and Capacity Building: Shared training programs for library staff and users (Mulyani *et.al*,2019)

## **Research Method**

This study uses a qualitative approach with a descriptive research type. The data source obtained using observation and documentation. The type of observation uses non-participant observation. The type of documentation used in this study is documentation at the HIU library and .

### **Research Design**

The research stages consist of several stages, namely observation. The researcher conducted observations because they were interested in the services provided by the library, especially when the researcher was looking for multi-reference references and also when compiling this scientific work. Then after the researcher conducted observations, the researcher continued the literature study by looking deeper into the HIU library.

After that, create a state of the art for this research, and create a research scenario design and data collection so that this research is better organized. Furthermore, after the author conducted a literature study, the author conducted a system trial and analysis that will be used in the final report making process.

### **Data Analysis Method**

Then the researcher observed the amount of data sent. Namely by dividing the sending process into two sends, namely sending data and sending book data files. Furthermore, updates are made on the central server. This stage is carried out by searching for literature studies and appropriate methods to be applied to the system so that the expected system design is formed. The system implementation stage will be carried out by the delivery process to the form of programming language implementation with PHP. The last stage is the validation or system testing of the performance of the designed system.

## **Results and Discussion**

### **Hartford International University (HIU) for Religion and Peace: History, Development, and Focus of Study**

Hartford International University for Religion and Peace (HIU), formerly known as Hartford Seminary, is one of the leading higher education institutions in the United States focused on the study of interfaith dialogue, world religions, and global peace. The university has been a pioneer in promoting interreligious understanding and the

development of inclusive religious leadership. Located in Hartford, Connecticut, the institution has a long history that reflects social change, intellectual transformation, and a commitment to global justice and peace.

### **History and Early Establishment**

Hartford International University was founded in 1834 as Hartford Theological Seminary. Initially, the institution was a center for training Protestant ministers, with the main goal of educating religious leaders to serve the church communities in the New England area. At that time, the seminary was known for its deep curriculum, covering theology, the Bible, and missionary work around the world.

In the 19th century, Hartford Theological Seminary became an important center for the Christian missionary movement. Many of its alumni were sent overseas to spread Christianity in Asia, Africa, and the Middle East. This approach reflected the spirit of the time, with the spread of Christianity being seen as part of a global responsibility. However, even in this context, Hartford began to take an interest in other religions. Missionaries often brought back insights into the cultures and beliefs they encountered, which were then integrated into the seminary's curriculum.

Entering the 20th century, religious landscapes around the world began to shift. Globalization, migration, and religious conflicts prompted Hartford to reassess its approach. In the 1970s, the institution decided to expand its focus beyond exclusive attention to Christian theology and towards interfaith dialogue and religious pluralism. This transformation allowed Hartford to become a pioneer in developing academic programs that included various religious traditions.

### **Transformation into Hartford International University**

In 2021, the institution changed its name to Hartford International University for Religion and Peace. This change reflected the university's renewed commitment to becoming a global center for interfaith dialogue and peacebuilding. The new name also underscored its inclusivity, serving not only the Christian community but also Muslim, Jewish, Hindu, Buddhist, and other religious communities worldwide.

This transformation was not just cosmetic; it involved a significant update to the curriculum and institutional vision. Hartford became a place where religions are studied not just for academic purposes but as tools for fostering understanding, harmony, and social change.

### **Focus of Study and Academic Programs**

Hartford International University offers various academic programs that are rooted in values of inclusivity, peace, and religious

pluralism. The main areas of focus within the university's programs include:

1. Interfaith Studies and Interreligious Dialogue

One of the main focuses of the university is promoting interfaith dialogue. This program is designed to build a deep understanding of different religious traditions, fostering tolerance, and creating spaces for constructive discussion. Students from diverse religious backgrounds collaborate in research and dialogue, sharing their spiritual experiences, and learning to recognize both the similarities and differences that enrich cross-cultural interaction.

2. Peace Studies and Conflict Resolution

HIU believes that religion can often be a powerful resource for peacebuilding. In this program, students learn how religious values can be used to resolve conflicts, both locally and globally. The focus includes religion-based mediation, advocacy, and peace policy development.

3. Islamic Studies

Hartford International University has a deep and comprehensive Islamic Studies program. This program covers the history of Islam, Islamic law (fiqh), Islamic theology, and Muslim culture. The curriculum is designed to foster dialogue between Muslims and other religious communities, strengthening interfaith relations through better understanding.

4. Education for Global Religious Leadership

This program aims to train religious leaders from various traditions to serve in multicultural societies. The approach covers not only the spiritual aspect but also practical skills such as conflict resolution, organizational management, and social advocacy.

HIU has a significant global impact through its alumni and international programs. Students from around the world come to study at the university, creating a dynamic and multicultural academic community. With a focus on interfaith education, HIU continues to play an important role in promoting religious harmony worldwide.

### **The Library of Hartford International University: Digital Resources and Manuscripts**

As one of the central components of Hartford International University (HIU), its library is designed to meet the academic and research needs relevant to religious studies, interfaith dialogue, and peacebuilding. Combining physical and digital collections, the library provides an optimal learning experience for students, researchers, and faculty.

HIU's library's digital resources are a cornerstone of its support for learning and research. With global accessibility, students and staff can benefit from a rich collection without geographical limitations.

1. E-Books and Electronic Journals

The library offers access to thousands of e-books and academic journals covering various religious traditions and interdisciplinary perspectives. Some of the prominent electronic journals accessible include:

- a. The Journal of Interreligious Studies (JIRS): A publication focused on interfaith dialogue and cross-tradition collaboration.
  - b. Journal of Islamic Studies: A leading journal on Islamic studies, addressing topics such as theology, Islamic law, and history.
  - c. Harvard Theological Review: An academic publication featuring in-depth discussions on theology and world religions.
  - d. Journal of Religious Ethics: Concentrating on religious ethics from multiple traditions.
  - e. The Muslim World: Published by Wiley, this journal explores topics like Islamic history, theology, and interfaith relations.
- This collection supports comprehensive research, enabling students and faculty to stay informed about the latest developments in religious studies.

2. ATLA Religion Database

The ATLA Religion Database is one of the leading databases specifically designed for religious research. Developed by the American Theological Library Association, it provides access to:

- a. Scholarly journal articles from various religious traditions.
- b. Book reviews relevant to religious and theological studies.
- c. Essays authored by experts in the field of religion.

ATLA encompasses more than 1.8 million entries, covering subjects such as biblical studies, systematic theology, religious ethics, Christian missions, and religious pluralism. One of its key features is access to academic journals spanning decades, offering both historical and contemporary insights on religious topics.

3. ProQuest Religion

ProQuest Religion is a database tailored to provide research materials relevant to various aspects of religion. Key features of ProQuest Religion include:

- a. Articles from academic journals, newspapers, and magazines discussing themes of religion and spirituality.
- b. Dissertations and theses relevant to religious studies, providing access to unpublished research.
- c. Various multimedia resources, such as audio and video recordings of religious practices.

ProQuest Religion is particularly valuable for researchers exploring religion in social, cultural, and political contexts. Common topics within this database include religious pluralism, gender in religion, and the intersection of religion and global politics.

4. Islamic Studies Databases

To support HIU's focus on Islamic studies, the library provides access to several specialized databases. These include:

- a. Islamic Studies Online: A platform featuring collections of classical Islamic texts, such as works on tafsir, hadith, and fiqh.
- b. Oxford Islamic Studies Online: Offering modern and traditional resources on Islam, including encyclopedia articles, reference books, and important documents.
- c. Early Arabic Printed Books: This digital collection features early printed Arabic books significant to Islamic history and tradition.
- d. Brill Online Islamic Studies: High-quality academic publications from a leading publisher, covering topics from Islamic history to contemporary studies.

These databases provide easy access to crucial resources that were once available only in select physical libraries worldwide.

#### 5. Digital Archives

HIU's library also houses digital archives containing manuscript collections and historical documents relevant to religious studies. These archives offer access to rare materials without requiring physical visits to the library.

Examples of digital archives include:

- a. Ancient Qur'anic Manuscripts: Digitized copies of Qur'anic manuscripts from various historical periods, supporting research on calligraphy styles, exegesis, and writing traditions.
- b. Christian Missionary Documents: Digital collections of key documents recording interactions between Christian missionaries and Muslim communities in the Middle East during the 19th century.
- c. Photographic and Religious Artifact Collections: Digitized artifacts used in religious rituals from various traditions, including Jewish, Hindu, and Buddhist artifacts.
- d. Ancient Jewish Theological Texts: This collection includes Rabbinic commentaries, Talmudic manuscripts, and other religious texts from the Middle East.

The digitization of these archives not only facilitates access for researchers but also preserves these rare materials for future generations.

#### **Support Services for Digital Resources**

To maximize the benefits of these digital resources, HIU's library offers a range of support services:

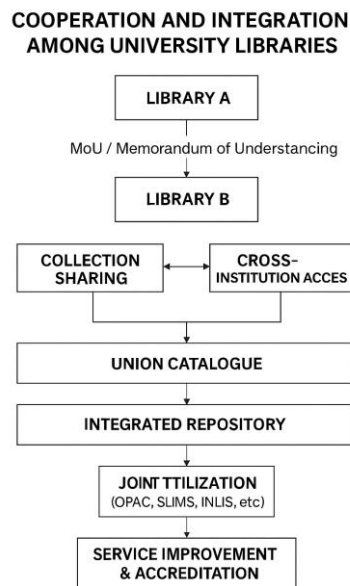
1. Digital Workshops: The library organizes training sessions on how to use digital databases and e-resources effectively.
2. Online Guides: Electronic guides are available, providing step-by-step instructions on accessing and utilizing digital resources.
3. Digital Reference Support: Researchers can consult librarians online to receive assistance in finding the right resources.

HIU's library's digital resources not only support academic research but also enhance the institution's mission to promote interfaith dialogue. Access to key texts from various religious

traditions enables students and researchers to gain a deeper understanding of different beliefs, values, and practices. Most Indonesian libraries do not yet support this.

With its combination of e-books, electronic journals, specialized databases, and digital archives, HIU's library is not only a center for learning but also a space for profound intellectual exploration. This support enriches students' academic experience and enables the institution to maintain its leading role in religious studies on a global scale.

### **Library Cooperation and Integration**



#### **Component Explanation:**

- MoU/Memorandum of Understanding: Legal basis and formal cooperation between institutions.
- Collection Exchange: Cross-utilization of collections (inter-library loans).
- Cross-Member Access: Students and lecturers from campus A can access campus B's library.
- Joint Catalog: Integration of catalog systems so that collections can be accessed online across institutions.
- Integrated Repository: Collection of scientific works (thesis, dissertation, journal) from several universities.
- Joint Training & HR: Improving librarian competence through cross-institution training.
- Information Technology: Use of systems such as SLiMS, INLIS, OPAC together.
- Service Improvement & Accreditation: Collaboration supports service improvement and achievement of BAN-PT standards.



### **Integration Phenomenon**

Forms of integration can be found in everyday community life. The simplest example of integration is when mutual cooperation is held in a village or hamlet. Mutual cooperation activities are a sign of a diverse society that blends and interacts with each other. They need each other's individual roles to carry out mutual cooperation. In addition, direct communication is also established which opens up opportunities for social integration.

Another example of integration in society can also be seen in the celebration of the Republic of Indonesia's Anniversary which was just held. Various groups from all over Indonesia united to enliven Indonesia's Anniversary with various activities. This condition is also a sign of the creation of good social integration in Indonesian society.

As a public service institution, university libraries cannot work alone without assistance, cooperation or integration with other libraries or even other parties. University library managers can establish good cooperation and service integration with work units or agencies around them. Of course, a form of cooperation or integration that is mutually beneficial (mutualistic symbiosis).

Library cooperation begins with an agreement (MoU) on the field (database, system and so on) that will be carried out together. Although it should be understood that not all aspects can be collaborated with other libraries. Cooperation that can be developed includes various aspects to improve the attractiveness, image and performance of the library (Sutarno: 2008).

Several work units or library institutions that can be invited to collaborate or integrate include educational institutions such as (other universities, religious schools, courses, skills training) and libraries in educational institutions, publishers and providers of books and library materials, village public service agencies, and community libraries.

The general forms of cooperation include:

- a. Promotion, socialization, and publication, so that all residents know about the library, so that the community understands and is interested in visiting and utilizing the library optimally.
- b. Expansion of service coverage that is widespread and evenly distributed to all areas where the library is located.
- c. Procurement and development of collections, funding providers, attention and concern from the community towards the condition of the library, for example by donating books.
- d. Developing ideas through discussion, dialogue, and exchange of opinions for community members while motivating them to visit the library because they feel they have a sense of ownership.
- e. Community participation in the promotion and utilization of the library with various activities involving various parties.

- f. Collaboration in conducting research on community responses, reactions, and participation in library activities.
- g. Processing of library materials, compilation of master catalogs, and services, are carried out with public libraries so that the library is more efficient and socialized.

To determine the effectiveness and efficiency of the cooperation that has been established, an evaluation is needed. The evaluation includes the value of benefits, weaknesses, obstacles, or constraints. In practice, many forms of cooperation are only in the form of an understanding (MOU), cannot be optimally actualized so that they are of little use. The results of the evaluation are then followed up with changes and improvements as needed.

Furthermore, the forms of integration between libraries include:

- a. The RestFul method can be applied to integrate data from several libraries within the scope of a university, institute or college.
- b. Implementing a client server working method, where the client sends data while the server receives data and responds back.
- c. Implementing a distributed database using a web service in sending data between clients and servers (Muchsin, 2015);
- d. Database Replication. Aglet Framework and RestFul Database Synchronization. In this study, we used the RestFul method with the Data Replication technique at the stage of connecting the database. This method is good to use when aligning the database. System accuracy can be improved by implementing a PHP application system. The next step is to match the tables and their fields. The last stage is when the database distribution must have a good network connection, so that the data sent will be the same as the data before it was sent. (Ida: 2017).

Some applications of inter-library integration systems that can be used include:

- 1. Use of collaborative virtual reference services (shared virtual references) that can provide shared services through cooperation between several libraries to meet the information needs of users in real time;
- 2. Mobile Agents such as The Use Of Mobile Agents In Network Management Applications, create a network-scale system between several different systems (Marcus, 2011);
- 3. Researching Through QR Codes in Libraries is the use of quick response code technology to attract students in university libraries (Robert, 2015);
- 4. Utilization of Web Services for communication between different applications Using the Internet Network, providing a device and a client application that can process transactions sent by the web service. Ultimately producing an Application Programming Interface (API) in the form of a web service that provides services for processing data (Ako, et al., 2014);

5. Integrated Application Development. This development aims to Improve Student Services and Access to the Reading Room with QR Code. The goal is to create an integrated reading room application equipped with QR Code so that visitors can search for books, take attendance, borrow books and provide suggestions to the library (Prihanto, et al., 2014).
6. Distributed Database Using Cloud Storage is a centralized data storage and online access for computer services or resources with high level security;
7. Data Integration Design Between Epidemiology Databases to Support Health Data Centers Using SOA Web Service by Fikri, et al. using the XML Web Services method, which is a method that can integrate applications and data exchange in XML (Extensible Markup Language) format. Data exchange in XML format uses SOAP (Simple Object Access Protocol) and WSDL (Web Services Description Language) technology and uses the NuSOAP library (Sudha S. et al. 2012). Database Replication in the Academic Data Processing System by using database replication results in faster access to academic information because the information provided can be done at several sites in a university (Parasian, 2014).

### **Library integration and Reality of Information and Communication Technology In Indonesia**

Library integration (especially in Indonesia) needs to be improved towards an informative society, because as the era of Information and Communication Technology (ICT) develops, libraries also need a global integration system (GIS). Among the things that libraries must also develop is network-based information technology which must be carried out by and for universities. The concept of library ICT technology such as "library automation" is a tool or media used to process data, including processing, obtaining, compiling, storing, manipulating data in various ways to produce quality information, namely relevant, accurate and timely information, which is used for personal, business, and government purposes and is strategic information for decision making. This technology uses a set of computers to process data, a network system to connect one computer to another according to needs, and telecommunications technology is used so that data can be distributed and accessed globally (Wardiana, 2002).

The trend of information technology progress in the information era that library technology needs to build an information society that can develop information accessibility. Library automation needs to build organization and management, implementation of information technology and communication and establish information legality policies.

According to Ike Iswary Lawanda et al. (2015) that the information society is a state of society where the quality of life, prospects for social change and economic development depend on the improvement of

information and its users. The information society is characterized by a society that relies on and places the creation, distribution, utilization, integration and manipulation of information as the main concern in economic, political and cultural activities.

Hartono (2020:309) Libraries are currently required to be able to change following the social changes of their users. The development of IT has greatly changed the social character of its users. Changes in information needs, in interacting with others, in competing, and so on. The presence of information technology (computers/internet) can no longer be avoided, ready or not, society must accept its presence.

Furthermore, library automation, especially the development of catalog databases, is the embryo of the birth of online searching which was popular in developed countries before the widespread use of the internet. Library automation was initially developed by large libraries and the type of computer used was generally a mainframe whose price and maintenance costs were relatively expensive. The development of PC computer capabilities and client/server network technology and the availability of various types of library software make automation no longer something expensive. Libraries in developing countries such as Indonesia can develop applications gradually by using programs such as CDS/ISIS which can be obtained for free.

Library Automation System is software that operates based on a database to automate library activities. In general, the software used for library automation uses a "relational database" model. This means that the database model is interconnected with what and book returns. Most library automation systems separate software functions into separate programs called modules. The modules consist of procurement, cataloging, circulation, serial, and Online Public Access Catalog (OPAC) modules. Library automation systems in Indonesia generally only have three modules, namely cataloging, circulation, and OPAC and these are the minimum modules that must be owned by libraries for automation purposes. These modules are integrated systems so that the term library automation system is also often referred to as an integrated library system.

In its development, the integrated library automation implementation system is able to achieve acquisition modules, data entry, OPAC searches, circulation systems, reporting statistics systems and membership card making systems.

One of the network-based information technologies is Inheren (Indonesian Higher Education Network) or the Indonesian Higher Education Network, which is a digital information and communication technology network that connects every university in Indonesia. One of its programs is the existence of a virtual laboratory and the concept of an e-library. This system facilitates access to information from the main library to other faculty libraries, so that it can improve the quality of service, especially to the academic community.

In the context of information ecology as quoted in Susanti (2012) that digital library services in their implementation create an ecological metaphor from the perspective of information technology. Ideal ecological information will create an ideal interaction between humans, technology, values, and activities. In its implementation, in Indonesia, the paradigm of library problems where its existence is still underestimated, so that the implementation of digital libraries is only carried out half-heartedly. The existence of circumstances to reject change can be one of the causes of this situation, or maybe not. In further explanation, Vicky LO'Day and Bonnie A. Nardi in Susanti (2012) in their writings on technology try to view technology from various metaphors. The metaphors are technology as a tool, technology as text, technology as an assistant, technology as a system, and technology as information ecology. Regarding technology as information ecology according to them, ....:we want a way of thinking about technology that acknowledges complex interdependencies between tools and practices and also admits the possibility of diverse local variations. We define information ecology as systems of people, technologies, practices and values."

In trying to understand more about information ecology, O'Day and Nardi Susanti (2012) use four characteristics, namely; First, diversity, where an ecology cannot possibly consist of one species. There must be various types of species with a variety of shapes, tastes, and styles.

Second, locality-meaning locality, where in an information ecology, all parts involved in it know each other and know each other's tasks, where these tasks are interconnected with each other.

Third, keystone species. In a natural ecology, there is always a species that has the biggest role that contributes the most to the dynamics of the ecology, and without this species the ecology will be divided.

Fourth, coevolution, where an ecology must always change. Nothing is static, because everything moves dynamically. Of these four ecological characteristics, a digital library is worthy enough to be called an ecology, namely information ecology. Digital libraries clearly have personal diversity where people involved in a digital library interaction have their own styles and preferences in searching for information, both users and librarians. In terms of locality, although not limited to the limitations of place and time, digital libraries have a special place in the form of a page (web page), where everyone involved can interact through technology.

Users can get to know their librarians, and librarians can get to know their librarians through social networks accessed through digital library sites, and each knows their own duties. There is one key species in information ecology, namely librarians, because without librarians, users are very likely not to find the information they need. Although online searching allows someone to access information anytime,

anywhere about anything, there is too much information on the internet, so it is like someone trying to drink from a hydrant. And of course, as previously stated, change always occurs. Currently in Indonesia, as previously stated, almost all of them have adopted the concept of digital libraries in implementing their services. In the process of providing information, an information ecology should be formed with the characteristics as mentioned above. However, with the problem of the digital divide and low information literacy, the information ecology will experience problems.

According to Susanti (2012), the digital divide is the existence of a gap in understanding the digital world between one person and another in a society, while information literacy is a person's understanding of the process of searching for information effectively and efficiently and how to get the right information at the right time. The Indonesian government in preparing for economic acceleration has invested quite a lot of funds in developing ICT which is referred to in the MP3EI manuscript as the development of the telematics industry. It is hoped that the Indonesian people will not only become users of ICT products and services, but will also be able to produce ICT products and services. Currently, what is seen is the success of ICT device sellers and communication operators in penetrating remote and isolated areas throughout Indonesia.

The existence of digital libraries and the spread of the internet and its access in various places, as well as the availability of millions of databases but with the existence of collections (analog, print) in the form of books, magazines, research reports, theses and other multimedia will have an impact on the role of libraries. In providing library services.

Digital services are the provision of remote access facilities and electronic publications. An electronic library is a library environment where various information objects (image, sound and video clip collections) are stored and accessed in digital form. The number of journal articles and loose articles as electronic publications is growing and developing rapidly. Old collections are being digitized to make them electronically accessible, including all types of library collections.

The proliferation of electronic information resources supported by rapid developments in the field of RADAR (Resource Access Discovery And Retrieval) systems including the www function, makes digital information accessibility an increasingly important alternative in meeting the information needs of the community. In the communication process, the author uses traditional publishers, editors, and the librarian community.

Digital libraries require digital librarians. Digital collections must be selected, acquired, organized, made available and maintained. Digital services must be planned implemented and supported. Although computers are the main tools needed in a digital library, human resources are the most important to develop and make it work.

Although the general requirements of a digital library are almost the same as non-digital collections, these requirements end there. Organizing a digital collection has little in common with organizing a print collection in terms of completing daily tasks individually. What digital librarians do now is almost never studied by library education institutions.

In recent years, the use of the internet has become increasingly widespread, including in Indonesia. The internet as a network of networks that freely exchange information and connect thousands of networks around the world, is growing rapidly. Currently, it is estimated that more than 16 million host computers are on the internet, and more than a million more are hidden behind the proxy server wall. The number of systems on the internet, and more than 70 percent every year. And the online population is expected to grow four or five times by the year 2000. In relation to the use of the internet, various tools have been developed that provide convenience in the creation, distribution, introduction, and use of network resources. These tools allow users to communicate electronically, publish their own resources, and organize and form their own views on the subject of information. In the process of scientific communication, researchers use the internet to reach a wider audience, bypassing traditional publishers, editors and librarian communities and designing alternative communication models.

The Internet has begun to change the way people work, and it will certainly change the way people interact with the world around them. Many skeptics view the Internet as being in danger of collapse at any moment. This view arises from those who see the Internet as designed for data-intensive use and rapid growth.

According to Robert B. Palmer, from a technical perspective, at least four things will happen once the Internet becomes the dominant business platform. First, the Internet infrastructure will be strengthened and upgraded to provide a high-capacity, available, and secure backbone that companies can use to conduct real business on the World Wide Web.

Second, the Internet will connect and integrate non-Internet systems, such as electronic data interchange and transaction processing. Third, the Internet will enable users to access information and services from anywhere and at any time using the devices of their choice. And fourth, with the explosion of information available on the Internet, it will provide new approaches to capturing and indexing that information.

Capacity, availability and security are prerequisites for the Internet to be accepted as a business platform. The next generation of the Internet requires next generation technologies, such as 64-bit computers, high-speed networks and robust Internet standards. The importance of 64-bit computers has been demonstrated by Amazon.com, a successful e-book store with over a million titles.

Amazon serves its customers 24 hours a day, 365 days a year with an average demand growth rate of 30 percent per month. Amazon runs the busiest site on the Web today, Niscape, which handles 120 million hits per day or over 1,400 hits per second. In the face of change, librarians must be able to see clearly what is changing and what is staying the same. The values that underlie the librarianship profession will likely remain the same, but the way those values are translated into activities and operations will fundamentally change. The library's mission to collect, organize and provide access to print-based information resources is no longer sufficient, but must be complemented by electronic-based resources, the number and speed of distribution of which must increase.

Librarians must accept responsibility and integrate with the networked information environment. The Internet, which offers a new way to communicate and gain access to a wide range of information, opens up new challenges for librarians to explore and utilize for the benefit of users. Librarians must take the initiative to organize and better access what is available or accessible through the Internet. Online catalogs should be developed and subsequently posted on local networks and the Internet. Interactive reference services and electronic delivery of collections are also in high demand. For example, the National Library of Singapore offers an online service through the Internet, where the public can access the catalog, renew book loans, send queries to reference librarians and propose procurement of new materials. In the next stage, librarians should involve themselves in the development of electronic materials, if necessary in collaboration with other parties (Hartono, 2020:315).

## **Conclusion**

The ideal library in the future should be a reference for library management to become a research library, it is necessary to have an integration of the library system with an integration model of access to unlimited information sources. This integration also has an excess on the library budget itself so that the library budget can be saved by expanding access with an integration model of access to information sources of a library. Library System Integration must start to become a world-class library standard (World Class University). And one of the things that supports library integration is to develop network-based information technology (networking). To develop networking technology, a sufficient budget is needed.

Libraries in the future must be able to provide digital-based scientific information access services for the development of science and especially the advancement of national civilization.

From several descriptions of the HIU USA library, it can be concluded:

First, the planning of integrated library management through the Hartford International University United State of America E-Library



begins with planning the functions and objectives of the E-Library itself and then continues with entering the database into the server;

Second, the implementation of integrated library management through the Hartford International University United State of America E-Library using a server client, in searching for books already using a digital catalog, and in student attendance already using fingerprints,

Third, there are several obstacles in integrated library management through the E-Library, namely, network limitations, facilities that are still lacking, and lack of human resources who are very knowledgeable about technology, the fourth solution provided to deal with obstacles in integrated library management through the E-Library at Hartford International University United State of America is to use offline so there is no need to use an internet network, and still trying to increase the number of facilities such as tablets and computers.

## References

- Ako M., dkk. 2014. Evaluating the Use of Quick Response (QR) Code at Sulaimani University Libraries. *International Journal of Advanced Research in Computer Science and Software Engineering*, Volume 4, Issue 11.
- ATLA Religion Database. (n.d.). *About ATLA*. Retrieved from <https://www.atla.com/>
- Budiman F, dkk. 2015. Desain Integrasi Data Antar Database Epidemiologi Untuk Mendukung Pusat Data Kesehatan dengan Menggunakan SOA Webservice.
- Dasgupta Prithviraj, dkk. 1999. MAgNET: Mobile Agents For Networked Electronic Trading. *IEEE Transactions On Knowledge And Data Engineering*, Vol. 1, No. 4.
- Hartford International University for Religion and Peace Library. (2021). *Library Resources*. Retrieved from <https://www.hartsem.edu/library/>
- Hartford International University for Religion and Peace. (2021). *History and Mission of HIU*. Retrieved from <https://www.hartsem.edu/about/>
- Hartford International University for Religion and Peace. (n.d.). *Academic Programs*. Retrieved from <https://www.hartsem.edu/academics/>
- Hartford Theological Seminary. (2021). *Historical Overview*. Retrieved from <https://www.hartsem.edu/about/history/>
- Hartono, *Transformasi Perpustakaan Dalam Ekosistem Digital (Konsep Dasar, Organisasi Informasi, dan Literasi Digital)*, Jakarta: Kencana, 2020.
- <https://uinjkt.ac.id/id/integrasi-perpustakaan-perlu-terapkan-teknologi-informasi>; diakses tanggal 2 Desember 2024

- Ida, *Integrasi Sistem Informasi Perpustakaan Menggunakan Replikasi Data*, SIBerPro Vol.2 No.1 April 2017, (1-7).
- Marcus. 2011. Mobile Agent seperti The Use Of Mobile Agents In Network Management Applications Science and Software Engineering, Volume 3, Issue 12.
- Muchsin S., dkk. 2015. Implementation of Distributed databasewith Data Marker Using Web Service Data. International Conference on Computer Science and Computational Intelligence (ICCSICI 2015).
- Mulyani, S., & Rachmawati, I. (2019). *Collaboration Among University Libraries in the Digital Era*. Journal of Library and Information Science, 7(2), 85–94
- Mutakin. 2011. Pemanfaatan Web Service Untuk Komunikasi Antar Aplikasi Yang Berbeda Menggunakan Jaringan Internet. Universitas Bina Darma. Palembang.
- Naylor. 2000. The Use Of Mobile Agents In Network Management. MSc Information Technology (System Integration).
- Parasian. 2014. Replikasi Basis Data Pada Sistem Pengolahan Data Akademik Universitas. ISSN: 2337-3601, Vol. III No 1: 32-36.
- Prihanto A., dkk. 2014. Pengembangan Aplikasi Terpadu Untuk Meningkatkan Layanan Dan Akses Mahasiswa Terhadap Ruang Baca Dengan Qr Code. Vol. III No. 2.
- ProQuest. (n.d.). *Religion Database*. Retrieved from <https://www.proquest.com/products-services/pqrl.html>
- Rahayuningsih, Fransisca, *Mengukur Kepuasan Pemustaka*, Yogyakarta: Graha Ilmu, 2015
- Robert, et al. 2015. Researching Through QR Codes in Libraries. IEEE Transactions On Knowledge and Data Engineering, Vol. 1, No. 4.
- Smith, J. (2019). *Islamic Manuscripts in American Libraries: A Study of Hartford Seminary's Collection*. Journal of Islamic Studies, 28(1), 88-101.
- Sudha S., dkk. 2012. Distributed database Using Cloud Storage. School of Information Technology and Engineering [SITE]. VII University. JARCSSE
- Sutarno, *Membina Perpustakaan Desa*, Jakarta: Sagung Seto, 2008.
- Walsh, et al. 2011. Blurring the boundaries between our physical and electronic libraries: Location aware technologies QR codes and RFID Electronic Library, 29 (4). pp. 429-437. tags.
- Williams, R. (2018). *Interfaith dialogue and the role of religion in global peacebuilding*. International Journal of Religious Studies, 12(3), 45-63.