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Executed Integrated Library System's Evaluation

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Abstract

An automated library system has cataloguing data in digital format but source documents are mostly available in print formats. In a digital library setup both metadata and documents are available in digital format. Automated library system Only metadata (cataloguing data) is finely searchable provides document description data set, not documents. Library automation refers to using technology to streamline and improve the management and operations of a library. It involves implementing various components to automate tasks and provide efficient access to library resources. The key components of library automation are integrated library system and barcode and RFID technology

Keywords: ILS, survey, discussion, evaluation, Integrated Library System

1. Introduction

Library Automation process started in the decade of 70s. Then it progressed over the time and finally we will be studying that how these changes affect Library Automation process in the last decades that is the first decade of the twenty-first century. Library automation has revolutionized how libraries function, transforming them into modern information hubs with advanced technological tools. At the heart of the library, automation is an essential component that works harmoniously to streamline operations, improve access to resources, and enhance user experiences. Library automation activities address two major issues – library housekeeping operations and access to library resources. An automated library system has cataloguing data in digital format but source documents are mostly available in print formats. In a digital library setup both metadata and documents are available in digital format. Automated library system Only metadata (cataloguing data) is finely searchable provides document description data set, not documents. Library automation refers to using technology to streamline and improve the management and operations of a library. It involves implementing various components to automate tasks and provide efficient access to library resources. The key components of library automation are integrated library system and barcode and RFID technology

An integrated library system (ILS) is a software suite that libraries use to manage their resources and services. It combines various functions into one unified system, which helps librarians efficiently handle various tasks in library. An integrated library system (ILS) is a software set that restructures library operations. A cloud-based integrated library system (ILS) is a software solution used by libraries to manage their collections, patrons, and services in a centralized and accessible way. Distinct from old-style traditional library systems, a cloud-based ILS is hosted on remote servers and can be accessed by the internet from anywhere. An integrated library system (ILS), also known as a library management system (LMS), is an enterprise resource planning system for a library, used to track items owned, orders made, bills paid, and patrons who have borrowed. The use of cloud-based library management systems

has increased drastically since the rise of cloud technology started. An ILS is usually made up of a relational database, software to interact with that database, and two graphical user interfaces one for clients, one for staff. Now ILSs are mostly based on relational database architecture. In such systems files are interlinked so the deletion, addition and other changes in one file automatically activate changes in related files. It means integrated library management system is sharing a common database to perform all the basic functions of a library.

Key Gears / unit of ILS

An integrated library system (ILS) is a software system used to manage a library's collections, automate library functions, and provide access to the library's resources. An ILS typically consists of several gears, each of which is responsible for a specific function. The core units of an ILS characteristically include:

- **Acquisitions:** This segment is used to order, receive, and manage library materials.
- **Cataloguing:** This component is used to create and maintain bibliographic records for library materials.
- **Circulation:** This gear is used to manage the lending and borrowing of library materials.
- **Serials:** This module is used to manage subscriptions to journals and other serial publications.
- **Online Public Access Catalogue (OPAC):** This part provides a web-based interface for library users to search for and access library materials.

In addition to these, an ILS may also include other modules, such as:

- **Interlibrary Loan:** This module is used to manage requests for materials from other libraries.
- **Patron Management:** This module is used to manage library user accounts.
- **Reporting:** This module is used to generate reports on library activity.

The units of an ILS are typically integrated with each other, so that data can be shared between them. The acquisitions module may be integrated with the cataloguing module, so that when a new item is received, it can be automatically catalogued.

In addition to the modules listed above, some ILS systems also include the following features:

- **Cloud-based hosting:** This allows libraries to access their ILS from anywhere with an internet connection.
- **Mobile access:** This allows library users to access the ILS from their mobile devices.
- **Open source:** This means that the ILS software is freely available and can be modified by libraries to meet their specific needs.

Evaluation of implemented/executed Integrated Library System

Evaluating an implemented Integrated Library System (ILS) is a crucial step for libraries to ensure they are using the most effective tools to manage their resources and serve their patrons. Evaluating an

Integrated Library System is a crucial step for any library looking to implement or upgrade its system. A thorough evaluation ensures that the chosen and executed / implemented ILS meets the library's specific needs and provides the best possible service to its users.

These are the steps for the evaluation process of implemented ILS:

1. Define Evaluation Objectives
2. Gather Data
3. Analyze Data
4. Evaluate Key Areas
5. Conclusions and Recommendations
6. Communicate Findings
7. Ongoing Evaluation

1**. Define Evaluation Objectives:**

- What are you trying to achieve with this evaluation?
  - Are you assessing overall system performance?
  - Focusing on specific modules (e.g., cataloguing, circulation)?
  - Determining user satisfaction?
  - Identifying areas for improvement?
- Clearly define your goals to guide the evaluation process.

2**. Gather Data**:

- Surveys: A user feedback survey is a questionnaire designed to collect information about a user's experience with a specific product, service, website, app, or any other interactive element. The goal is to understand the user's perceptions, opinions, and needs to improve the overall product experience. Collect quantitative and qualitative data on user satisfaction, ease of use, and any issues encountered.
- User Feedback: User feedback surveys are a valuable tool for gathering insights into user experiences, opinions, and needs. They can be used to improve products, services, websites, apps, and any other interactive element.

There are some survey methods

- User's research surveys: These surveys are comprehensive and designed to gather detailed information about users/ library members perceptions, experiences, and expectations regarding your library system in general.
- Customer satisfaction score (CSAT) surveys: CSAT surveys measure user satisfaction with your service.
- Customer effort score (CES) surveys: CES surveys measure how easy it is for users to interact with your library, such as searching and getting material of their requirement.

- User experience surveys: These surveys focus on gathering feedback about the user's experience with your collection, including its usability, availability, and reliability.

Best practices for creating user feedback surveys:

- Choose the right survey tool: There are many survey tools available, so choose one that meets your needs in terms of features, pricing, and ease of use.
- Collect feedback periodically: Don't just send out surveys once in a while. Make it a regular practice to collect feedback from your users.
- Use survey segmentation: Segment your users based on demographics, behaviour, or other criteria to personalize survey experiences and gather more relevant feedback.
- Avoid asking bad survey questions: Make sure your questions are clear, concise, and unbiased. Avoid leading questions, double-barrelled questions, and jargon.
- Utilize localized survey questions: If you have users in different countries, make sure your survey questions are translated accurately and culturally appropriate.
- Analyze survey performance: Track your survey response rates and identify any areas where you can improve your survey design or distribution methods.

When to ask for user feedback:

- During pilots/testing/beta: Get feedback from users who are trying out your product for the first time.
- Following completion of a task or transaction: Ask users about their experience after they've completed a specific task, such as making a purchase or contacting customer support.
- At different stages of the user journey: Collect feedback at various touchpoints to understand how users interact with your product over time.

Question formats for user feedback surveys:

- Open-ended questions: Allow users to provide free-form answers in their own words.
- Close-ended questions: Provide users with a set of pre-defined answers to choose from, such as multiple-choice questions or rating scales.
- Follow-up questions: Ask additional questions based on previous answers to gather more detailed information.

Examples of user feedback survey questions:

- "How satisfied were you with your experience using our ILS?"
- "How likely are you to recommend our library service to a friend or colleague?"
- "What are the top challenges you face when using our OPAC?"
- "What features would you like to see added to our ILS?"
- "How easy was it to find the information you were looking for on our website?"

How to use user feedback:

- Analyze the data for patterns and trends: Look for common themes and identify areas where you can make improvements.
- Prioritize feedback based on impact and feasibility: Focus on the feedback that will have the biggest impact on your users and that you can realistically implement.
- Communicate changes to your users: Let your users know that you're listening to their feedback and that you're making changes based on their input.
- Continuously collect and analyse feedback: User feedback is an ongoing process. Make sure you're regularly collecting and analysing feedback to ensure that you're meeting your users' needs.

By following these guidelines, you can create effective user feedback surveys that will help you improve your products, services, and overall user experience.

Focus Groups:

Focus groups are a valuable qualitative research method used to gather user feedback and gain insights into their opinions, beliefs, and experiences.

What is a focus group?

A focus group is a small group discussion typically 6-10 user participants controlled by a librarian. The participants are selected based on their relevance to the topic being researched. The Librarian guides the discussion, encouraging user participants to share their thoughts, feelings, and experiences related to the library service.

Why use focus groups for user feedback?

- In-depth insights: Focus groups allow you to gather rich, qualitative data about user experiences, motivations, and discomfort points.
- Explore user perspectives: They provide a platform for users to express their opinions in their own words and engage in a dialogue with others, revealing diverse perspectives.
- Generate ideas: The interactive nature of focus groups can spark new ideas and uncover unexpected intuitions.
- Understand user needs: Focus groups can help you understand the underlying needs and motivations behind user behaviours.
- Test concepts: You can use focus groups to gather feedback on new product ideas, designs, or features before investing in development.

Method to conduct a focus group:

1. Define your objectives: Clearly outline the goals of your focus group and the specific information you want to gather.

2. Recruit participants: Select participants who represent your target audience and have relevant experience with your product or service.
3. Develop a discussion guide: Create a list of open-ended questions and topics to guide the discussion, ensuring it stays focused on your objectives.
4. Choose a moderator: Select a skilled moderator who can facilitate the discussion, encourage participation, and remain neutral.
5. Set up the environment: Create a comfortable and relaxed environment for the focus group, ensuring privacy and minimizing distractions.
6. Conduct the discussion: The moderator guides the discussion, asking open-ended questions, probing for details, and encouraging interaction among participants.
7. Record the session: Audio or video record the session to capture the discussion for later analysis.
8. Analyze the data: Review the recordings and transcripts to identify key themes, patterns, and insights.

Best practices for focus groups:

- Clearly define your research questions: Ensure your objectives are specific and well-defined to guide the discussion effectively.
- Carefully recruit participants: Select participants who represent your target audience and have relevant experience with your product or service.
- Develop a comprehensive discussion guide: Create a list of open-ended questions and topics that will elicit the information you need.
- Choose a skilled moderator: Select a moderator who is experienced in facilitating group discussions, encouraging participation, and remaining neutral.
- Create a comfortable environment: Ensure the focus group setting is comfortable, private, and free from distractions.
- Encourage participation: The moderator should encourage all participants to share their thoughts and opinions, ensuring no one dominates the conversation.
- Listen actively: Pay close attention to what participants are saying, both verbally and nonverbally, to gain a deeper understanding of their perspectives.
- Analyze the data thoroughly: Review the recordings and transcripts carefully to identify key themes, patterns, and insights.

Advantages of focus groups:

- Rich qualitative data: Focus groups provide in-depth insights into user experiences, motivations, and pain points.
- Exploration of user perspectives: They allow you to understand diverse viewpoints and gather feedback in users' own words.
- Idea generation: The interactive nature of focus groups can spark new ideas and uncover unexpected insights.
- Understanding user needs: Focus groups can help you understand the underlying needs and motivations behind user behaviours.

- Concept testing: You can use focus groups to gather feedback on new product ideas, designs, or features before investing in development.

Disadvantages of focus groups:

- Small sample size: Focus groups typically involve a small number of participants, which may not be representative of the entire user population.
- Moderator bias: The moderator's influence can unintentionally shape the discussion or interpretation of results.
- Group dynamics: Group dynamics can influence individual responses, with some participants dominating the conversation while others remain quiet.
- Cost and time: Conducting focus groups can be time-consuming and expensive, requiring careful planning, recruitment, and analysis.
- Subjectivity: The analysis of focus group data can be subjective, as it relies on the interpretation of the moderator and researchers.

When to use focus groups:

- Early stages of product development: Focus groups can be used to gather feedback on initial concepts, identify user needs, and explore potential features.
- Testing new designs or features: Focus groups can help you understand how users interact with and perceive new designs or features.
- Understanding user behaviour: Focus groups can provide insights into why users behave in certain ways and what motivates their actions.
- Exploring user satisfaction: Focus groups can be used to gather feedback on user satisfaction with existing products or services.

Alternatives to focus groups:

- User interviews: One-on-one interviews with users can provide in-depth insights into individual experiences and perspectives.
- Surveys: Surveys can be used to gather quantitative data from a larger sample of users.
- Usability testing: Usability testing involves observing users as they interact with a product to identify usability issues.
- A/B testing: A/B testing involves comparing two versions of a product or feature to determine which performs better.

Focus groups are a valuable tool for gathering user feedback and gaining insights into their opinions, beliefs, and experiences. By following best practices and carefully considering the advantages and disadvantages, you can effectively use focus groups to improve your services, and overall user experience.

System Data:

System data gathering refers to the process of collecting and storing data related to the performance, usage, and accessibility of a system, whether it's a software application, a website, a network, or any other complex system. This data can be invaluable for understanding how the system is being used, identifying potential issues, and making informed decisions about improvements and optimizations.

Types of System Data:

- Performance data: This includes metrics like CPU usage, memory consumption, disk I/O, network latency, and response times. It helps in assessing the system's efficiency and identifying bottlenecks.
- Usage data: This track how users interact with the system, such as which features are used most often, the paths users take through the system, and the duration of sessions. It provides insights into user behavior and preferences.
- Error logs: These record any errors or exceptions that occur within the system, providing valuable information for debugging and troubleshooting.
- Security logs: These track security-related events, such as login attempts, access requests, and suspicious activity, helping to identify and prevent security breaches.
- Audit logs: These record changes made to the system, such as configuration updates or data modifications, providing an audit trail for compliance and accountability.

Methods of System Data Gathering:

- Built-in logging: Many systems have built-in logging mechanisms that automatically record events and metrics.
- Monitoring tools: Specialized tools can be used to collect and analyze system data in real-time.
- APIs: Some systems provide APIs that allow external applications to access system data.
- Agents: Small programs can be installed on servers or devices to collect data and send it to a central repository.

Uses of System Data:

- Performance monitoring: System data can be used to track the performance of the system and identify areas for improvement.
- Troubleshooting: Error logs and other system data can help in diagnosing and resolving issues.
- Capacity planning: Usage data can be used to predict future demand and plan for capacity accordingly.
- Security monitoring: Security logs can help in detecting and responding to security threats.
- User behaviour analysis: Usage data can provide insights into how users interact with the system, helping to improve user experience and design.
- Business intelligence: System data can be combined with other data sources to provide business insights and support decision-making.

Best Practices for System Data Gathering:

- Define clear goals: Determine what information you need to collect and why.
- Choose the right tools: Select tools that are appropriate for your system and your needs.
- Collect data consistently: Ensure that data is collected regularly and consistently to provide a reliable picture of system behavior.
- Store data securely: Protect system data from unauthorized access and ensure that it is stored in compliance with relevant regulations.
- Analyze data effectively: Use appropriate tools and techniques to analyze system data and extract meaningful insights.
- Take action: Use the insights gained from system data to make informed decisions about improvements and optimizations.

By effectively gathering and analysing system data, you can gain valuable insights into the performance, usage, and behavior of your systems, enabling you to improve efficiency, reliability, security, and user experience.

Staff Feedback: Staff feedback is crucial in the evaluation of an Integrated Library System (ILS). Library staff are the primary users of the system and their input can provide valuable insights into its strengths and weaknesses. Methods for Gathering Staff Feedback:

- Surveys: Conduct surveys to collect quantitative and qualitative data on staff experiences with the ILS. Include questions about usability, functionality, efficiency, and satisfaction.
- Focus groups: Organize focus group discussions to allow staff to share their thoughts and opinions in a more interactive setting. This can help uncover deeper insights and generate new ideas.
- Interviews: Conduct individual interviews with key staff members to gather detailed feedback on specific aspects of the ILS functionality, efficiency, and impact on workflows. This can be particularly useful for gathering feedback from staff with specialized roles or responsibilities.
- Feedback forms: Provide staff with feedback forms to submit their comments and suggestions at any time. This can encourage ongoing feedback and identify emerging issues.
- Observation: Observe staff as they use the ILS to identify any usability issues or areas where they may be struggling. This can provide valuable insights that may not be captured through other methods.

3. Analyze Data:

- Identify trends and patterns in the data collected.
- Compare data against initial objectives and expectations.
- Analyze both quantitative and qualitative data to get a comprehensive understanding of the ILS's performance.

4. Evaluate Key Areas:

- Functionality:
  - Does the ILS meet the library's needs in terms of cataloguing, circulation, acquisitions, etc.?
  - Are all modules functioning as expected?
  - Are there any missing features or functionalities?
- Usability:
  - Is the ILS user-friendly for both staff and patrons?
  - Is the interface intuitive and easy to navigate?
  - Are there any accessibility issues?
- Performance:
  - Is the ILS fast and reliable?
  - Does it handle the library's volume of data and transactions efficiently?
  - Are there any technical issues that need to be addressed?
- Integration:
  - Does the ILS integrate seamlessly with other library systems (e.g., discovery layer, digital repositories)?
  - Are there any compatibility issues?
- Support and Training:
  - Has adequate training been provided to staff?
  - Is ongoing technical support readily available?
  - Are there sufficient resources for troubleshooting and problem-solving?

5. Draw Conclusions and Make Recommendations:

- Summarize the key findings of the evaluation.
- Identify strengths and weaknesses of the ILS.
- Develop recommendations for improvement, including:
  - System upgrades or modifications
  - Changes to workflows or procedures
  - Additional training for staff
  - Addressing technical issues
- Prioritize recommendations based on their impact and feasibility.

6. Communicate Findings:

- Share the evaluation results with stakeholders, including library staff, administration, and users.
- Present the findings in a clear and concise manner, using visuals and data to support your conclusions.
- Use the evaluation results to inform decision-making about the ILS and future library technology investments.

7. Ongoing Evaluation:

- ILS evaluation should be an ongoing process.
- Regularly monitor system performance and user feedback to identify any emerging issues or areas for improvement.
- Use the evaluation data to ensure that the ILS continues to meet the library's evolving needs.

By following these steps, libraries can effectively evaluate their implemented and executed ILS and ensure that it is a valuable tool for supporting library operations and serving the needs of their users. Based on the evaluation results, the library can make an informed decision about implemented Integrated Library system to improve or update. It's important to consider not only the technical aspects of the system but also the vendor's support, training, and yearly technical support plans.

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