Bsc Information Science Year Three, 2025

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Admission: AIIM/00477/2021

Preservation and conservation of information materials CAT 1

- Research on the Conservation and Preservation techniques of records(15 marks)

Introduction

Records as information materials are very important in any society for they serve as historical evidence, legal documents, and sources of knowledge. In Kenya where there is rapid development and technological advancements that is reshaping the Kenyan landscape. The conservation and preservation of records has become very important. The Kenyan environment has unique challenges in conservation and preservation of records like high humidity, temperature fluctuations, and biological agents, which can accelerate the deterioration of records. This research explores the conservation and preservation techniques applicable to the current Kenyan environment. It focuses on the agents of deterioration and the strategies to mitigate their effects.

Body

Key concepts

The key concepts of these research are preservation, conservation and deterioration. Preservation refers to all actions taken to protect and maintain records, ensuring their longevity and accessibility. Conservation usually involves specific treatments and interventions to repair and stabilize records, preventing further deterioration. Deterioration refers to the process by which records lose their quality or functionality due to internal or external factors.

Deterioration

Deterioration refers to the process by which records lose their quality or functionality due to internal or external factors. The agents of deterioration in the Kenyan environment that the research would discuss are the internal and external agents. For the internal agents they include;

* + Natural properties of materials. Paper made from wood pulp contains lignin and acidic compounds, which can cause yellowing and brittleness.
  + Inks and pigments. Certain inks, like iron gall ink, are highly acidic and can damage paper over time.
  + Adhesives and sizing. Many adhesives and sizing agents used in paper production can introduce acidity, leading to deterioration.

For the external agents they are divided into physical, chemical and biological agents include;

- Physical agents;

* + High humidity can lead to mold growth and hydrolysis, while low humidity can cause brittleness.
  + High temperatures can accelerate chemical reactions, leading to aging and discoloration.
  + Prolonged exposure to light can cause fading and oxidation.

- Chemical Agents;

* + Pollutants in the air, such as sulfur dioxide and nitrogen oxides, can react with paper and cause acidification.

- Biological Agents:

* + Insects and pests like book lice and termites feed on paper and other organic materials.
  + Micro-organisms like fungi and bacteria can cause staining and structural weakening.
  + Rodents like rats and mice can damage records by chewing or nesting.

Conservation and preservation Techniques

Conservation and preservation techniques could be discussed in terms of presentative and corrective measures. Preventive measures include;

* + Environmental control like maintaining stable humidity (30-50%) and temperature (15-20°C) to slow down deterioration.
  + Proper storage techniques like using acid-free materials, archival boxes, and secure shelving to protect records.
  + Best handling practices like educating staff and users on proper handling techniques to minimize wear and tear.
  + Pest control methods like using insecticides, sealing entry points, and maintaining cleanliness to prevent infestations.

For the corrective measures they include;

* + Restoration practices like repairing damaged records through techniques like mending, de acidification, and rebinding.
  + Digitization of records by converting physical records to digital formats here by ensuring accessibility and preservation.
  + Chemical treatments techniques like de acidification and lamination to stabilize and protect records.

Their are modern advancements in conservation and preservation techniques like;

* + Digital preservation done by implementing digital repositories and backup systems to safeguard electronic records.
  + Records conservation laboratories established and equipped with tools and expertise for advanced conservation techniques.

Challenges of conservation and preservation techniques

Focusing in Kenya as a case study, the establishing and implementation of conservation and preservation techniques have been faced with several challenges like;

* + Limited resources which many institutions in Kenya face budget constraints, limiting their ability to invest in advanced conservation technologies and trained personnel.
  + Kenya's tropical climate, characterized by high humidity and temperature fluctuations, accelerates the deterioration of records.
  + Infrastructure challenges like inadequate storage facilities and poor environmental control systems in many Kenyan institutions exacerbate the risk of deterioration.
  + Human factors like poor handling practices, lack of training, and insufficient awareness of the importance of preservation contribute to the deterioration of records.

Recommendations

Brought by challenges the best recommendation include;

* + Investment in infrastructure where governments and institutions should prioritize the development of climate-controlled storage facilities and conservation laboratories.
  + Training and awareness programs like holding regular training programs for staff and users on proper handling, preservation, and conservation techniques are essential.
  + Digitization initiatives done by encouraging the digitization of records can help preserve them for future generations while making them more accessible.
  + Collaboration and funding performed by partnerships with international organizations and funding agencies can provide the necessary resources and expertise to enhance conservation efforts in Kenya.

Conclusions

The conservation and preservation of records are essential for maintaining their integrity and accessibility over time. In Kenya, where the environment presents unique challenges, it is crucial to adopt a proactive approach to mitigating the agents of deterioration. By implementing preventive and corrective measures, leveraging modern technologies, and addressing the specific challenges of the Kenyan context, institutions can safeguard their valuable records for future generations.

References

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