Pre-Conference

**Cutting Edge Technologies in the Library 4.0:
Enhancing Reference Services in Caribbean Academic libraries with Virtual
Reference Service (VRS) Cloud Software Technology**

Date: 18th May, 2022.

Time: 11.30 AM (EC TRINIDAD &
TOBAGO TIME)

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Change Management and Resilience: Proactive Actions in Libraries, Museums and Archives of the Caribbean

PRESENTATION OUTLINE

Introduction - Virtual Reference Service (VRS) Definition & Features

Objectives

Research Methodology

Literature Review

Discussion

Limitation

Recommendations

Conclusion

References

INTRODUCTION

VIRTUAL REFERENCE SERVICES (VRS)

Ex Libris (2022) highlighted 3 trends shaping libraries:

- The shift from traditional, face-to-face library services to digital services and delivery models

- Budgetary pressures forcing libraries to become more efficient

- Rising patron expectations prompt libraries to find ways of improving access and enhancing the patron's experience.

Additionally, due to the physical closure of several libraries as a result of COVID-19, more academic libraries remain accessible via VRS to support patrons remotely, with minimal interruptions (Baxter et al. 2021)

INTRODUCTION

VIRTUAL REFERENCE SERVICES (VRS) DEFINITION & FEATURES

DEFINITION	SYSTEM FEATURES
Patrons employ computers or other internet technology to communicate with library reference staff **Communication channels used frequently in virtual reference include chat, video conferencing, Voice over IP co-browsing, email, and instant messaging (ALA, 2021; 2017, 1).** **VRS occurs both synchronously (chat) and asynchronously (email)** **Reference services are initiated electronically, often in real time**	Analytics Platforms (Statistics) - Monitoring, Evaluating, Manipulating Data Level of Difficulty of Query (Staff Perspective) Question Type Demographics Cloud Technology Software Patron Satisfaction Survey Quality of Service- Duration Including Time Taken to Respond Subject/Interests) Chat & Email Recorded

- To discuss the use of a Virtual Reference Service (VRS) platform in enhancing patron access and experience in academic libraries

- To highlight challenges of a VRS platform in improving academic libraries' efficiency and effectiveness in a diverse Caribbean context.

For this study, the researchers used:

- **Case studies of libraries offering Virtual Reference Service (VRS) platforms**

- **Conducted an extensive review of the literature on the topic**

Virtual Reference Service (VRS) in Academic Libraries Accelerated Implementation

2002

Movement explored from manual to virtual reference since 2002.

Gaps identified in the role of the library and librarian in the digital age (Gottesman 2002)

ARL conducted a reference services and assessment survey which "revealed a situation in flux" (ARL 2002; Gerlich 2021)

2004

More growth of VRS led to Librarians' demands for direction in setting up & operating newer VRS

Reference & User Services Association (RUSA) - ALA introduced the *Guidelines for Implementing and Maintaining Virtual Reference Services (*VR Guidelines)

2020-2022

VRS, the most common form of real time reference communication in the library today (Abubakar 2021)

LITERATURE REVIEW

HOW VRS ENHANCES ACCESS & PATRON EXPERIENCE

There was an increase in email and chat reference interactions and virtual consultations.

(De Groote and Mi Scoulas (2021)

Libraries pivoted quickly to have the VRS running to be able to keep communication open virtually. (Nicolas 2021)

Improved how library staff handles enquiries and provided a "more efficient way of passing these on to colleagues and monitoring progress"

Libraries used the VRS to increase virtual support and continue to meet spikes in utilization of the reference services by patrons during COVID-19 (De Groote and Mi Scoulas (2021)

Nicolas (2021), an academic library, for example, saw a 38.2% increase in their VR transactions (excluding their 24/7 chat) over the same period from 2019-2020.

Increase in the use of virtual support for patrons, both synchronously and asynchronously, with additional functionality of libraries' services (Baxter 2021) and access to library services in the Caribbean and the rest of the world (Greenberg & Bar-Ilan 2015; Tenopir 2004)

LITERATURE REVIEW

HOW VRS FACILITATES & ACCOMMODATES INTERNAL & EXTERNAL PATRONS

Facilitates:

- **Patron engagement & improvement in customer services**

- **Ability to target/refine & tailor materials and services geared toward a specific group of users**

Facilitates:

- **Patron usage trends to inform service improvements e.g:**
  - **Busiest Times**
  - **Subject Coverage**
  - **How Questions are Asked**

- **A more standardised way for libraries to demonstrate how they add value to their institutions success.**

Accommodates:

- **Patron anonymity**

- **Synchronous & asynchronous interaction at patron convenience**

- **Extended hours**

Source: (Greenberg & Bar-Ilan 2015; Tenopir 2004)

COVID-19 AS A CATALYST FOR VRS

System rollouts of service platforms greatly hastened online to support teaching, learning and research via remote work. Figure 1 shows Greenhall's (2020) study for Research Libraries United Kingdom (RLUK). Of the 336 respondents in his study, 61% held the view that COVID-19 has been a catalyst for change and encouraged or embedded pre-existing ways of working at a faster pace
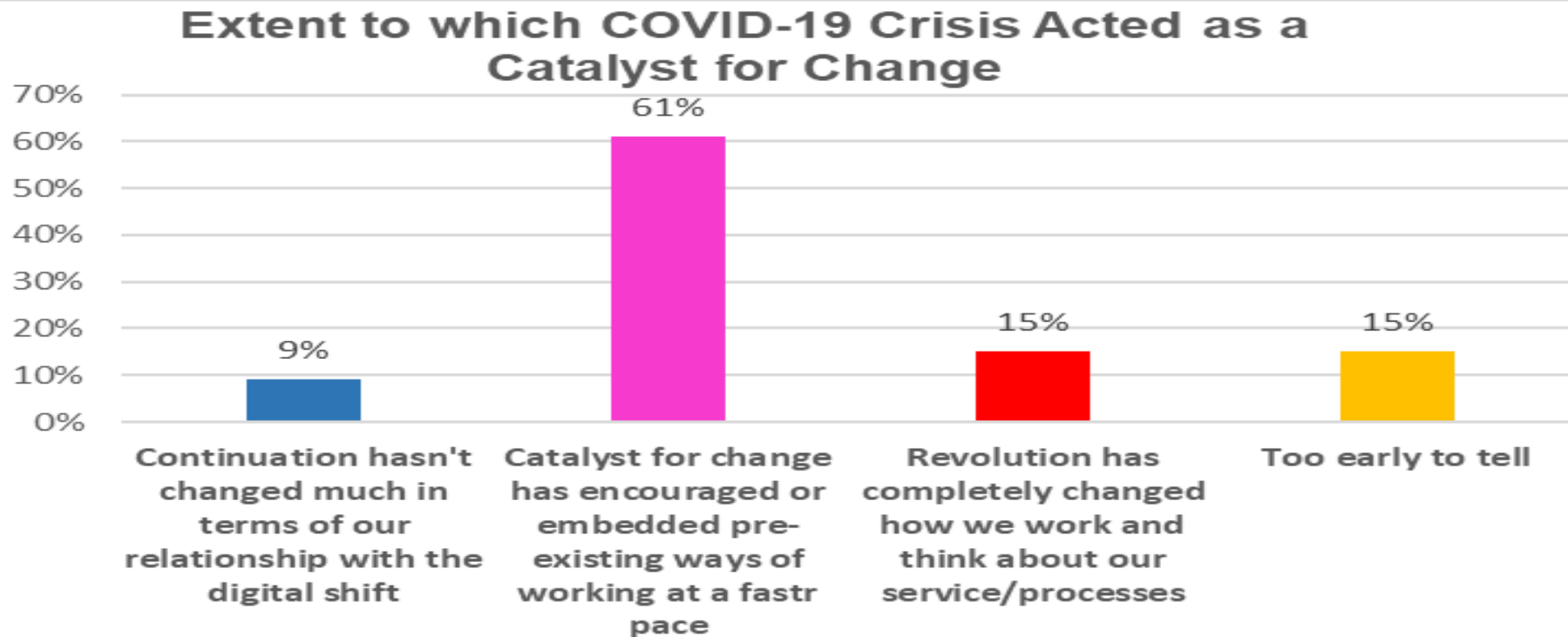
- **Total Respondents - 336**
- **Catalyst for change - 61%**

Extent to which COVID-19 Crisis Acted as a Catalyst for Change

Continuation hasn't changed much in terms of our relationship with the digital shift	Catalyst for change has encouraged or embedded pre-existing ways of working at a fastr pace	Revolution has completely changed how we work and think about our service/processes	Too early to tell
9%	61%	15%	15%

Figure 1 Adapted from Greenhall's (2020) study by Research Libraries United Kingdom (RLUK)

Transition to remote working challenged long held assumptions regarding which roles and tasks could be completed remotely, and the suitability of technology in research libraries to support these (Baxter, Beard, Beattie, Blake, Greenhall, Lingstadt, & Reimer 2021)

DISCUSSION

How VRS Models Enhanced Access & Improved Patron Experience in Libraries

Libraries had already taken steps towards these initiatives and transitions prior to the COVID-19 pandemic (Greenhall 2020)

RLUK Research Libraries UK

COVID-19 was "a catalyst for pre-existing change rather than a cause of the change itself" (Greenhall 2020b; Dempsey 2020; St. Rose & Johnson 2022)

Enhances Resource access:

Allows for identification of themes for specific resource needs and of target groups:
- Statistics - evidence-based data
- Development of a comprehensive knowledge base & FAQ repository with accurate answers
- Relevant instructional support and information literacy
- Marketing

Improves Patron experience through identification of service gaps, e.g.:

- Usage trends
- Scheduling time - missed & concurrent chats data
- Busiest times
- Subjects requested

There was rapid realignment of libraries to a more digital mode during COVID-19
Research libraries showed the ability to adapt quickly & effectively to unprecedented circumstances
(Baxter, Beard, Beattie, Blake, Greenhall, Lingstadt, Nixon, & Reimer 2021)

DISCUSSION

VRS Functionalities Facilitate Best Practice for Librarians

VRKB Repository of evidence based data in a Caribbean context

Comprehensive Knowledge Base; FAQ repository generated from online reference services

Data and information evaluated for quality assurance measures Kern (2009) to supply better insights into data

Has the ability to prioritize, manage and preserve information e.g. Caribbean special collections material

Saves time Economically benefits libraries with significant savings in Library business (Armenti 2003)

Identifies key themes to set goals. Creates a more useful Website, Marketing & Promotional activities

Discerns specific resource needs; instructional support Information Literacy

Searchbility of "electronic archive of question & answer pairs" by patrons (Armenti 2003)

VRKB allows libraries to give timely and accurate answers within a cooperative & networked environment & knowledge exchange

Archival value of knowledge bases: "Because they provide a way to store communications between the reference librarian and the user, they preserve generated knowledge and its repeated use in a search for new information" Bosancic 2010.

DISCUSSION

VRS Supporting Library Staff Collaboration, Development & Training Needs

Make more informed staffing decisions
- When & Who to staff,
- Determine Training Requirements

GOAL SETTING

Allows library staff to set goals supporting teaching, learning & research needs of the Caribbean society

Find out where they are in relation to their individual training, development and collaborative goals

KNOWLEDGE MANAGEMENT

Distribution of Reference Librarians' expertise through responses to patrons

Furnishing knowledge distribution as part of knowledge management (Armenti 2003)

COLLABORATION

Move to remote working facilitated cross team online collaborations and communication for improving the service offered to patrons

EFFECTIVE CUSTOMER SERVICE

Facilitated opportunities to increase patron engagement and customer service

Facilitates building on a bedrock of core skills to provide a solid foundation for support digital skills and services to patrons (Baxter, Beard, Beatie, Blake, Greenhall, Reimer 2021)

VRS brought library teams closer together (Nicolas 2021)

DISCUSSION

VRS - Supporting Course Development & Decision-Making

Libraries worked to promote, optimise & build upon their strong digital presence via VRS especially during the COVID-19 lockdown periods (Greenhall 2020)

This included the rebranding of library webpages as a virtual library & proactive promotion of library digital resources (Greenhall 2020)

Libraries were "able to demonstrate a range of roles confidently, as provider of training content, as partner in the development of online learning materials, & as a pioneer in training delivery & skills development" (Baxter, et. al. 2021)

Significant increase in the use of digital resources & recognition of the breadth & variety of digital resources offered by the library (De Froote, & Mi Scoulas, 2021; Greenhall 2020), Nicolas 2021)

Realisation of greater opportunities for the Caribbean to increasingly look at their own unique content that could provide material to enhance teaching, learning & research e.g. hybrid teaching (Greenhall 2021; Guy et. al. 2021)

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DISCUSSION

Benefits of VRS to Caribbean Academic Libraries

Create context setting goals and taking measures (quantitatively & qualitatively) to find out where the libraries are in relation to their individual or collaborative goals of supporting their mission

Provide evidence-based data in a Caribbean context & highlight best practices

Virtual reference transactions stored in a knowledge base repository

Built up around specific topics or queries, e.g. for Caribbean resources

Can allow libraries to provide an analytical view of how the methodologies used by internal and external stakeholders impact performance (Harrison & Deans 2021)

Foster collaboration & partnerships in the Caribbean region

Opportunities for service & quality assurance evaluation based on what libraries in the Caribbean want to achieve e.g., performance, trends, features, extent to which patron needs are satisfied, usability & organisational issues (Pinto & Manso 2012)

DISCUSSION

VRS CHALLENGES

OVERARCHING LOGISTICAL AND TECHNICAL CHALLENGES ACCELERATED DURING COVID19 PANDEMIC LED TO :

- *Greater adoption of e-content across disciplines & use of digital collections*
- *Physical dependence on digital infrastructure*
- *Recognition of gaps in digitisation of archival and special collections content material for libraries*

Users' Challenges

1. Patrons' diverse views on libraries perception/understanding of the extent & nature of the digital shift
2. Patron and staff perception of the library as a "physical building, offering physical services" Baxter et al. 2021)
3. Increased logistical challenges such as recruitment freeze with the advent of COVID-19 resulting in the day-to-day stresses of operating longer hours virtually.
4. The urgency of functioning remotely & virtually revealed variable levels of "digital inequality amongst patrons and staff (ALA 2021; Baxter et al. 2021; Peet 2020)

VRS CHALLENGES

OVERARCHING LOGISTICAL AND TECHNICAL CHALLENGES ACCELERATED DURING COVID19 PANDEMIC LED TO GREATER

- *Greater adoption of e-content across disciplines & use of digital collections*
- *Physical dependence on digital infrastructure*
- *Recognition of gaps in digitisation of archival and special collections content material for libraries*

Technological Challenges

- Patron reach and access to library online collections, databases and other library services.

- Varying levels of digital literacy and digital poverty for patrons and library staff "highlighted the potential of the digital shift to leave many people behind" Baxter, Beard, Beattie, Greenhall, Lingstadt, Nixon, & Torsten Reimer (2021)

Examples: St Augustine Campus: Alma Jordan Library

Springshare LibAnswers, chat, email, Facebook

Mona Campus Library

Kayako Help Desk Software, chat, email, Whatsapp

Cave Hill Campus - Sidney Martin Library
Pure Chat Software

VIRTUAL REFERENCE SERVICES IN CARIBBEAN ACADEMIC LIBRARIES
The University Libraries, The University of the West Indies

Open Campus - Library & Information Services

Springshare Libanswers Software- email, chat, FAQ, Whatsapp

Legislative Provisions

Copyright and Licensing requirements

Closure of library buildings exposed a wider issue regarding the interdependence between digital access to collections and resources, and physical access to library spaces and infrastructure

Little to no access to some digital content due to terms of their licenses from commercial vendors

Issues of sensitivity of resource material

No single remedy to ease interdependence of digital access on physical access.

Restrictions which cement the dependency of digital access on physical access to libraries

Considerable time is needed to resolve these issues

Examples

- Restrictions cement the dependency of digital access on physical access |

- Some databases could only be viewed on dedicated terminals due to licensing agreements. There was vendor resistance against releasing remote access to libraries

- Little to no access to some digital content due to the terms of their licenses (for commercially purchased material)

- Copyright restrictions (such as some in-copyright, digitised materials), confining viewing of content within library buildings

Source: Baxter, Beard, Beattie, Blake, Greenhall, Lingstadt, Nixon & Torsten Reimer (2021)

RECOMMENDATIONS

VRS AND COPY/USER INFORMATION RIGHTS

Need for greater discussion on ethical approaches to the use and rights to information

VRS DEVELOPMENT AND USE OF POLICY GUIDELINES

Library staff embracing **'anchor points' t**hrough development and implementation of institutional policy guidelines that support and maintain professional values and practice of the profession and ensure that these can be developed "in tandem with more technical skills" (Chowdhury 2021)

VRS AND WORKING CULTURE

The **'digital shift'** requires a new working culture (change management), especially when seen as an opportunity to support staff resilience and flexibility (Baxter, Beard, Beattie, Blake, Greenhall Lingstadt, Nixon & Reimer (2021)

CONCLUSION

In keeping with the current & rapid technological changes & attendant transformation of reference services to VRS, Nicol and Cook (2021), noted that libraries in the Caribbean must take a page from libraries in the developed world to remain contemporary and relevant especially with the advent of COVID 19

Greater Implementation & Use Of Innovative Systems Such As VRS

- Allows for standardising, improving, and optimising patron engagement and customer service needs as a new priority in libraries (Abubakar 2021; St. Rose & Johnson 2022)

- Facilitates comprehensive knowledge bases of questions, responses & Caribbean collections with authoritative information on Caribbean culture, literature, history, society, economics & sciences (Iton 2015; St. Rose & Johnson 2022)

- Enhances service offerings both synchronously and asynchronously to increase library reference service efficiency & effectiveness in a timely manner

- Impacts library staff positively & can assist with training & skills development, building confidence, & fostering networked & collaborative environments bringing Caribbean academic libraries closer as leaders & pioneers in Caribbean research.

- Saves time & money, can improve digital literacy & allow for better evaluation of services through built in statistics, analytics, knowledge sharing & distribution (Armenti 2003; St. Rose & Johnson 2022)

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THANK YOU!

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