



FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA
SCHOOL OF SCIENCE AND TECHNOLOGY EDUCATION



9TH SSTE HYBRID International Conference

— **THEME:** —

RE-THINKING THE FUTURE THROUGH
STEM AND TVET
FOR ACHIEVING SUSTAINABLE
DEVELOPMENT GOALS

Conference PROCEEDINGS

Monday, 2nd to Friday, 6th October, 2023

FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA



**INTERNATIONAL CONFERENCE
OF SCHOOL OF SCIENCE AND TECHNOLOGY EDUCATION
(SSTE)**

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**9th INTERNATIONAL CONFERENCE OF SCHOOL OF
SCIENCE AND TECHNOLOGY EDUCATION (SSTE)**

HYBRID CONFERENCE

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ACKNOWLEDGEMENTS

Local Organizing Committee of the 9th International Conference of School of Science and Technology Education (SSTE), Federal University of Technology, Minna, appreciates the Management of the University for the Unflinching Support given to the team which led to the success of this Conference. We also wish to express our profound gratitude for the assistance rendered by the University Management especially in disseminating information relating to this Conference using the University website, Campus News, and FUT Search FM.

Thank the Dean, School of Science and Technology Education (SSTE) for hosting this Conference despite the economic situation in the country. His encouragement, advice, and moral support gave the Local Organizing Committee the strength to complete this task and make sure the Conference is successful.

Sincerely thank the academic staff of the School and University Community for their essential roles played towards the success of the Conference. We thank the non-teaching staff for their roles which contributed to the success of this Conference.

Efforts of the Editorial Board are commendable for making sure that the Book of Proceedings was ready. We appreciate the efforts of the Keynote presenter, Lead Paper presenters, and others for attending this Conference despite their tight schedule.

We also commend the undergraduate and postgraduate students of the School for sparing their time to participate in all the events. Above all, we thank God Almighty for the strength given to the LOC members to discharge their enormous tasks.

PREFACE

Science, Technology, Engineering and Mathematics (STEM) and Technical and Vocational Education and Training (TVET) are very relevant in the 21st-century education. 21st-century education is about giving students the skills they need to succeed in this new world and helping them develop the confidence to practice those skills. The 21st-century skills focus more on making sense of that information, sharing and using it in smart ways. A focus on STEM and TVET could help in equipping students for life and work in the 21st Century.

STEM and TVET are considered critical as they tend to removes boarder between the disciplines by making the students to comprehend the world as a whole rather than in parts. STEM is interdisciplinary approach to learning where rigorous academic concepts are coupled with real world lessons while TVET takes individuals into account by providing all kinds of skills (or jobs).

Hence, the theme of this conference is apt and provides opportunities where experts brainstorm so that international communities can benefit from one another and also respond to emerging trends in *STEM* and *TVET* in the 21st Century. It is worthnoting that, proper implementation of the 21st-century STEM and TVET issues would have a greater influence on the quality of manpower injected into the labour market which may determine the economic growth of any nation.

The theme and sub-themes of this conference, "Re- thinking the Future through STEM and TVET for achieving Sustainable Development Goals"are based on the prevailing circumstances in education sectors in developing nations. I am sure this conference has provided an avenue for researchers and educators to share their ideas on the 21st-century emerging trends in STEM and TVET that can enhance quality education and self-reliance in underdeveloped and developing nations across the world. I hope the theme and sub-themes meet the needs of the stakeholders in education.

The sub-themes are:

- STEM and TVET for Economic Diversification and poverty Reduction
- STEM and TVET for Hunger Reduction
- STEM and TVET for Sustainable Clean Water and Sanitation
- STEM and TVET for Affordable and Clean Energy
- STEM and TVET for Improving Industry, Innovation and Infrastructure
- STEM and TVET for Achieving Gender Equality
- STEM and TVET for Reducing Inequality within and among Countries
- STEM and TVET for Quality Education
- STEM and TVET for Sustainable Consumption and Production Patterns
- I. C. T. in STEM and TVET for Sustainable Development
- Communication in STEM and TVET for Sustainable Development
- STEM and TVET for Combating Climate Change and it's Impacts
- STEM and TVET for Good Health and Well-Being
- STEM and TVET for Conserving Life on Land and Below Water

The Local Organizing Committee is thankful to the participants of 2023 conference for their contributions.

God bless you all.

Prof. I. Y. Umar
LOC Chairman

**WELCOME ADDRESS PRESENTED BY THE VICE CHANCELLOR, PROFESSOR FARUK ADAMU KUTA AT THE OPENING CEREMONY OF THE 9TH INTERNATIONAL CONFERENCE OF THE SCHOOL OF SCIENCE AND TECHNOLOGY EDUCATION (SSTE), FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA, NIGER STATE, NIGERIA
2nd - 6th OCTOBER, 2023**

On behalf of the Governing Council, Management, Staff and Students of Federal University of Technology, Minna, I am pleased to welcome you to the 9th International Conference of the School of Science and Technology Education of this University. I would like to extend a warm welcome to all the distinguish speakers at this conference, in particular, the Keynote Speaker, Prof. Padma M. Sarangapani, Chairperson of the Center for Excellence in Teacher Education, Tata Institute of Social Sciences, Mumbai, India, and, the Lead Paper presenters, Prof. Hassan Bello, Dean, Faculty of Technology Education, Abubakar Tafawa Balewa University, Bauchi, Nigeria; Prof. AsfaM. Yasin, Director Education, KGN School of Excellence, Bhopal, India; Prof. Nobert Jere, Walter Sisulu University, Eastern Cape, South Africa, and Prof. Rohaida M. Saat, Department of Mathematics and Science Education, Faculty of Science Education, University of Malaya, Kuala Lumpur, Malaysia. This is an impressive lineup of speakers! Also, to all participants who have come from far and near, welcome to this annual Conference which over the years has served as platform for scholars to come together to share their researches on matters of vital concern to the progress of human society.

This year is not an exception, especially when we take into consideration the theme of the Conference which is “Re-thinking the Future through STEM and TVET for Achieving Sustainable Development Goals”. As enunciated by UNESCO, Sustainable Development is expected to “meet the needs of the present, without compromising the ability of future generations to meet their own needs. Consequently, this theme is of particular relevance as the world continues to grapple with a variety of challenges that have to do with economics, social development and the environment.

Sustainable Development Goals (SDGs) encompass 17 concerns which include Economic diversification and poverty reduction (SDG 1), Zero hunger (SDG 2), Good health and well-being (SDG 3), Quality education (SDG 4), Gender equality (SDG 5), Clean water and sanitation (SDG 6), Affordable and clean energy (SDG7), Industry, innovation and infrastructure (SDG 9) among others. You will agree that our collective ability to achieve these laudable goals would make a tremendous difference to the quality of life for all people around the world, and indeed, even more so in the developing countries of Africa and Asia that are beset with a myriad of competing challenges. The urgency to address these matters was highlighted by Antonio Guterres, the Secretary-General of the United Nations when in 2019, he issued a global call for a *Decade of Action* to deliver the Sustainable Development Goals by 2030. This decade commenced in 2020 to end in 2030, and already, we are rapidly moving into 2024 which means that much has to be delivered in the next six years.

Setting these Sustainable Development Goals (SDGs) is meant to mobilize networks across countries in order to galvanize knowledge and practice into concrete results that will impact on lives and livelihoods. Therefore, if we seek the most appropriate education that is aimed at developing knowledge, awareness, and action for the SDGs, then both STEM (Science, Technology, Engineering and mathematics) and Technical and TVET (Vocational Education and Training) are best positioned to provide solutions that will solve daily life problems, discover new technologies and create career opportunities. This because STEM and TVET education foster critical thinking, problem-solving, creativity, innovation, collaboration, communication and ethical awareness that are essential for the achievement of sustainable development.

The focal drive of this Conference is to exchange ideas and by participating in this exchange on a wide range of related topics, it is hoped that all participants will benefit from the conference experience and would go on to apply the knowledge gained in meaningful ways. So, ladies and gentlemen, scholars, researchers, thank you for being here and for lending your expertise to this important Conference. Thank you also to the Dean of the School of Science and Technology

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SCIENCE, TECHNOLOGY AND SUSTAINABLE DEVELOPMENT GOALS

THE ROLE OF CURRENT AWARENESS SERVICES IN ENHANCING QUALITY LIBRARY SERVICE DELIVERY USING CAS-UP GRAPHICS IN FUT MINNA, NIGER STATE.

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Abstract

This study is focused on the role of current awareness services in enhancing quality library service delivery in the Ibrahim Badamasi Babangida Library FEDERAL University of Technology Minna. Libraries have long been recognised as an important storehouse of information, knowledge and services. With the increase in the number of resources available in academic libraries, keeping library users informed of new acquisitions has become a necessity to improve learning, teaching and research. Current Awareness Services (CAS) are designed to help users stay informed about recent developments, issues, and activities relating to their field of study. The Federal University of Technology Minna Library has implemented CAS, but it is not clear how effective it is in meeting the needs and expectations of library users. This study aimed to investigate the availability and use of CAS in the Federal University of Technology Minna Library, as well as the perceived expectations of library users from CAS. The study further developed Current Awareness Service-Upgrade (CAS-UP) using a graphical design template to revitalize the existing CAS in the library. A survey research design was adopted using copies of questionnaire designed with Google Forms to randomly collect data from 234 undergraduate and postgraduate students of FUT Minna. The findings from this research showed that the level of awareness of CAS was low while the expectations from students as regards CAS was high. CAS-UP was developed as a way of upgrading the existing current awareness services using a graphical design template. The study recommended that regular training should be encouraged for library staff to ensure effective current awareness service delivery and CAS-UP should be promoted through various channels such as social media, newsletters, emails and posters.

Keywords: academic library, CAS-UP, current awareness service, FUT Minna, quality education and learning.

Introduction

Libraries have been in existence for a very long time and are generally presumed as information and service collections. Libraries originally were specifically created to keep books and records, but over time the library has evolved and is now the backbone and the center of every university, polytechnic, institution, or organization.

The library as a living organism keeps growing and increasing in the collection, and there is a need to keep library users informed of any recent acquisitions. Most libraries today have responded to this reality through what is known as Current Awareness Services (CAS). CAS is designed to help users with limited time and busy schedules stay informed of the recent developments, issues, and activities relating to their field of study.

Graphic design can be seen as the art of creating visual content (text, images, shapes, symbols, etc.) to communicate ideas and messages to a particular audience. The mastery of graphic design can strongly influence CAS by creating compelling and attractive graphical content which could be in the form of posters, banners, and magazines, that would keep users abreast of the recent acquisitions of information resources relevant to their field of study.

S.R. Ranganathan, the father of library science in India, described Current Awareness Services (CAS) as "the process of keeping the readers informed about the latest additions to the library's collection in their fields of interest" (Ranganathan, 1931). The work emphasized the importance of providing timely and relevant information to library patrons, in order to ensure that they have access to the latest research and information in their area of study. This concept of CAS has been widely adopted by libraries worldwide and is considered a cornerstone of modern library services.

Also, another scholarly definition of CAS was given by Stempler and Polger (2014) to be "a service which provides the recipient with information on the latest developments within the subject areas in which he or she has a specific interest or need to know."

Basically, current awareness services can be even referred to as an announcement mechanism. It is the system in the library institution or any information center keen to always informing its clientele about newly acquired publication in their field or related field of study.

In the early days of library science, CAS was typically provided in the form of printed lists, such as new book lists, that were manually produced by library staff (Cano-Kollmann, 2019). However, with the advent of digital technologies, libraries have been able to create more sophisticated and automated CAS offerings, such as electronic databases and email notifications (Wong, 2020).

Despite these advancements, the fundamental purpose of CAS remains the same: to keep library patrons informed about the latest additions to the library's collection and other resources that may be of interest to them (Hamilton, 2018). This is especially important in academic libraries, where the collection is constantly growing and changing and where patrons are in need of staying informed of the latest research and information in their field of study (Cano-Kollmann, 2019).

In recent years, the use of CAS in libraries has become increasingly relevant as patrons have come to expect more personalized and relevant services from their libraries. To meet this demand, libraries have been experimenting with new and innovative ways to deliver CAS, such as social media, mobile technologies, and digital kiosks (Wong, 2020).

The graphic design presents a way out by offering librarians a visually appealing way of rendering current awareness services to library patrons. After carefully observing the library of the Federal University of Technology, Minna, it was discovered that there is a need to revitalize, re-strategize, and fully maximize the use of CAS via the aid of graphic design. Observations have also revealed that there seems to be poor knowledge of the availability of CAS amongst students in the Federal University of Technology, Minna library. This study hopes to upgrade the current awareness services in the Federal University of Technology library using graphic design. The developed system will be referred to as CAS-UP, an acronym for Current Awareness Services-Upgrade (CAS-UP).

Aim and Objectives of the Study

The aim of the study is to design and implement a Current Awareness Service Upgrade (CAS-UP) at the Federal University of Technology Minna. In order to achieve the aim, the following objectives were set:

4. Determine the availability and use of Current Awareness Services (CAS) in the Federal University of Technology Minna, Library.
5. Determine perceived expectations from CAS in the Federal University of Technology Minna Library.
6. Develop a CAS-UP to revitalize the existing current awareness service in the Federal University of Technology Minna Library.

Literature Review

9th Hybrid International Conference of School of Science and Technology Education (SSTE)

Current awareness services have been offered in different ways and formats. Naqvi (2013) typified that current awareness services exist in many ways in university libraries as follows:

- i. Library bulletin and newsletters
- ii. List of latest resources acquired (New arrivals)
- iii. Topical bibliographical on demand
- iv. Contents page service
- v. Routing of periodicals
- vi. News clipping service
- vii. Abstract bulleting
- viii. List of microform documents
- ix. Commercial current content service
- x. Telephone service
- xi. E-mail and bulletin board services
- xii. Display among others

These are generalized kind of awareness services where the users have to scan through their own relevant information.

Types of Current Awareness Services (CAS)

- i. **Table of Contents:** provides an overview of the structure and organization of a publication, including the headings, subheadings, and page numbers. It allows users to quickly locate specific information within the publication, making it easier to navigate and find what they are looking for (Cano-Kollmann, 2019). The use of table of contents is particularly relevant in academic libraries, where users are often looking for specific information related to their field of study. In addition to making it easier for users to find the information they need, table of contents can also provide a quick overview of the content of a publication, allowing users to make informed decisions about whether or not they want to read the publication in its entirety.
- ii. **New Arrivals Display:** is a type of current awareness service that showcases new items or acquisitions to library patrons. This service is usually implemented through physical displays, such as shelves, posters, or banners, which are placed in prominent locations within the library. The purpose of New Arrivals Display is to make patrons aware of the most recent additions to the library's collection and to encourage them to explore and check out the new materials. The service is particularly useful for academic libraries, where the collection is constantly growing and changing and where patrons are in need of staying informed of the latest research and information in their field of study (Cano-Kollmann, 2019).
- iii. **Email Alerts and Newsletter Services:** This type of service enables patrons to subscribe to emails that contain information about new resources, updates, and changes in library policies (Cano-Kollmann, 2019). Library patrons can choose to subscribe to either daily, weekly, or monthly newsletters.
- iv. **Social Media Services:** Libraries use social media platforms such as Twitter, Facebook, and Instagram to provide updated information on new resources, changes in services, and events to patrons (Wong, 2020). This type of service enables patrons to interact with the library and receive up-to-date information in real-time.
- v. **Mobile Application Services:** Some libraries have developed mobile applications that enable patrons to access library services and receive updated information on new resources, changes in policies, and events (Paull & Toze, 2015). This type of service provides a convenient and user-friendly platform for patrons to receive updated information.
- vi. **Electronic Display Services:** Some libraries have installed electronic displays within their premises to provide patrons with real-time updates on new resources, changes in services, and events (Brown, 2018). This type of service is an effective way to reach a large number of patrons at once.
- vii. **Web-based Services:** Libraries have developed web-based platforms that provide patrons with updated information on new resources, changes in services, and events. This type of service is an effective way to reach a large number of patrons who have access to the internet (Cassella & Bojar, 2017).

- viii. **Research-in-Progress Bulletins:** it notifies users of recent research projects alongside the progress of the research document. It even contains information about where the project is being carried out, names of researcher/associate researcher, length of the project, and the necessary equipment employed.

Why CAS?

The aim of current awareness services is based on satisfying user needs either in a library or an information center. There are some key factors that influence the need for current awareness services;

- **Current information:** the fuel of every research is information, not just any information but relevant and current information. Most library user visit the library in quest for information because the library as we know it is also an information repository. The library is charged with the duty of providing up-to-date information resources to its clientele.
- **Continuous information needs:** in a society where we have increasing rates of publication, intellectual contents, and users ever changing needs it is expedient that the library is also equal to the task of continually updating its collection and thereby satisfying its users.
- **Response to Changes:** It enables users respond effectively to changes in the working environment or field of study.

Graphic Design

Graphic design may be traced back to ancient cave drawings from circa 38,000 BCE, according to historians. The majority of these paintings, which can be seen all throughout the world, represent hunting-related subjects such as animals and weaponry. Although no one truly knows what these cave drawings were used for, it's apparent that they were used to communicate visually.

The term "graphic design" was not in existence until 1922, when William Dwiggins coined the phrase to define the art of graphic design. Professionals in the early days of graphic design sketched by hand. Graphic design, on the other hand, has advanced fast in the previous 60 years, especially since the introduction of today's digital art tools.

Despite the fact that the concept of graphic design was not created, some of the first designs still incorporated typography in newspapers and books. Paintings on cave walls might potentially be considered a sort of early graphics.

Graphic Design and Library Service Delivery

Images, pictures, and text surround people and we encounter them in daily activities. The library houses a space where people encounter different forms of images, text, and pictures and these components communicate messages and viable information to library users and staff.

These avenues could be good or bad design which influences the experience and satisfaction of the user. Graphic design in libraries is a significant and underexplored area of library practice to improve communication for promotion and outreach (Polger & Okamoto, 2013). It also has a connection to visual literacy which can be seen as the ability to find, use, analyze, and create visual materials, Visual Literacy Standards Task Force, (2012).

Libraries should harness the possibilities of effective promotion and communication activities through graphic design as well as librarians should also acquire hands-on skills and training since many libraries are responsible for creating and designing signage, posters, brochures, and instructional handouts for their libraries. All these varieties of designs fall under the umbrella of "graphic design".

Graphic Signage as a Communication Tool in Libraries

Library users in need of information must interact with the physical library environment before accessing information. The environment of the library serves as the user's means of movement and communication. Graphic signage in the library can greatly improve the user experience and enhance navigation and accessibility because these graphical displays serve as guides to users. For instance, where to find the library catalog or the restroom. Signage includes all visible text and pictures that people consult at a place for guidance and explanation. According to Stempler and Polger (2014),

Regular library users require assistance to inform and direct them through the ongoing changes that a library experiences. Signage is frequently used to provide this support; it needs to be checked and updated frequently.

According to Serfass (2012) the two major objectives for library signage is: "informing library users and seeking to influence their behavioural patterns. "Graphical Signage can help users navigate through the overwhelming information world of any library by welcoming, guiding, instructing, and delighting them. Graphical signage system makes information content system tangible by embodying and communicating the informational content of the library's program or events.

CAS-UP

The acronym CAS-UP means Current Awareness Service-Upgrade. It is a library management system designed in an attempt to upgrade the current CAS in the Federal University of Technology, Minna, library. In recent years, academic libraries have faced increasing pressure to provide efficient and effective current awareness services to their users. To address this need, a new design template called CAS-UP (Current Awareness Service-Upgrade) has been developed. This template is designed to improve current awareness services in academic libraries by providing a more efficient and effective way to deliver current information to library users.

CAS-UP is essentially an initiative to create a more visual and informative design system, which is solely for improving current awareness services (CAS) in the library. The bankruptcy of visual communicative elements in the current library can be bridged upon the implementation of CAS-UP. This will significantly improve the user experience and essentially serve as a communicative tool, keeping them informed and engaged.

Research Methodology

The survey method is the research design adopted in this study. This approach is deemed the best method for generating relevant data. This survey method was chosen since it allowed the researcher to contact study participants in their various locations and gather data for the study. The findings of the study will then be applied to the whole population. As data would be collected from respondents via copies of the questionnaire, the survey approach was necessary for this investigation. Students (undergraduate and postgraduate) are the study's target population. The total number of undergraduate students is 21,617 : (Academic Office, Federal University of Technology, Minna, 2021). The questionnaire was divided into two sections: Section A (respondent demographic data) and Section B (question items).

Presentation of Results

A Google form was designed and the link was shared with the class representative of students in 100-500 level, MSc, and PhD. The collection process took about three weeks. The total number of 234 copies of questionnaire responses were retrieved and analyzed.

Demographic Data

Table 1: Distribution by School

School	Frequency	Percentage (%)
SEET	18	7.7
SEMT	30	12.8
SET	17	7.3
SICT	42	17.9
SIPET	19	8.1
SLS	23	9.8
SPS	37	15.8

SSTE	30	12.8
Total	234	100%

Table 1 above shows that the largest school is SICT (School of Information and Communication Technology) with 42 students, which makes up 17.9% of the total student population.

Table 2: Distribution by Gender

Sex	Frequency	Percentage
Male	140	59.8%
Female	94	40.2%
Total	234	100%

Table 3: Level of the Respondents

Level	Frequency	Percentage (%)
100	21	9.0
200	36	15.4
300	54	23.1
400	33	14.1
500	61	26.1
MSc	25	10.7
PhD	4	1.7
Total	234	100

Research Question One

Are you Aware of Current Awareness Services (CAS) in the Federal University of Technology Minna?

Table 4: Awareness of CAS in FUT Minna Library

Statements	SA	A	D	SD	Mean	Decision Mean
I am aware of when new books are delivered to the library	17 (7.3%)	102 (43.6%)	36 (15.4%)	79 (33.8%)	2.24	Disagreed
I get notifications of new materials in the library	10 (4.3%)	24 (10.3%)	131 (56%)	69 (29.5%)	1.89	Disagreed
The library has a list of materials, print and non-print that are of interest to me	40 (17.1%)	88 (37.6%)	70 (29.9%)	36 (15.4%)	2.56	Agreed
The library recommends books to me via emails	7 (3%)	26 (11.1%)	120 (51.3%)	81 (34.6%)	1.82	Disagreed

Table 4 indicated the awareness of Current Awareness Services (CAS) in the Federal University of Technology Minna. It is evident from the table that the awareness of current awareness services in the library is low.

Research Question Two

What is the Perceived Expectation from CAS in FUT Minna Library?

Table 5: Perceived Expectations from CAS in FUT Minna Library

Statement	SA	A	D	SD	Mean	Decision Mean
I want to be aware of new library materials	129 55.1%	92 39.3%	6 2.6%	7 3%	3.47	Agreed
I want to see library updates on bulletin boards	108 46.2%	115 49.1%	6 2.6%	5 2.1%	3.39	Agreed
I want to receive library recommendations on recent materials in my field of study	141 60.3%	85 36.3%	3 1.3%	5 2.1%	3.55	Agreed
I want to receive notifications on the recent happenings in and outside the library	122 52.1%	92 39.3%	17 7.3%	3 1.3%	3.42	Agreed
I want to subscribe to the library newsletter	103 44%	103 44%	18 7.7%	10 4.3%	3.28	Agreed

Table 5 indicated the Perceived expectation from CAS FUT Minna library. The result shows that that the expectations of current awareness services in the library is very high.

Research Question 3

Can CAS-UP revitalize the existing current awareness service in the Federal University of Technology, Minna?

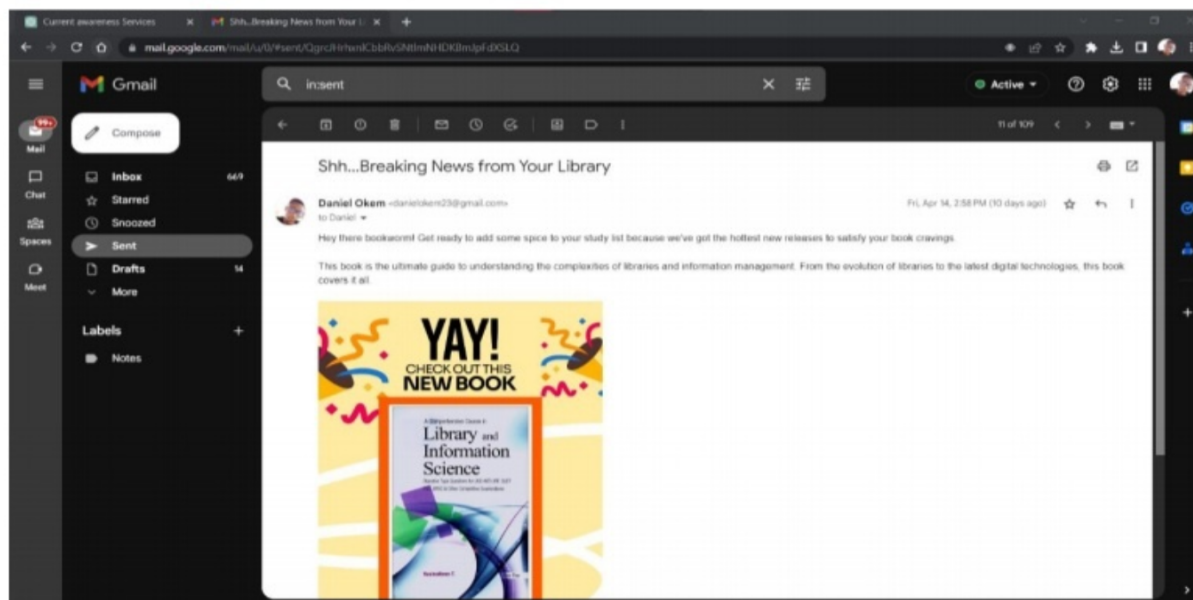
CAS-UP is a design template that uses a variety of graphical tools, principles, and software, such as Adobe Photoshop, to create a visually appealing and informative template for delivering current information to library users. CAS-UP template was designed to be easy to use and customizable, with pre-made designs for various types of CAS documents, including books, pamphlets, reports, theses, and standards. This means that libraries can quickly and easily create eye-catching displays that highlight new arrivals in the library. By providing a more efficient and effective way to deliver current information to library users, CAS-UP can help libraries to build stronger relationships with their users, increase user satisfaction, and ultimately support academic success. Figure 1 shows the CAS-UP graphical template:



Figure 1: CAS-UP Template

A clear and concise email, with an eye-catching subject line that will grab the reader's attention, containing information on relevant and useful information, such as the latest library acquisitions, upcoming workshops, or events can be easily shared using the CAS-UP template.

Figure 2: Snapshot of CAS-UP email to library users



Discussion of Findings

It was observed that undergraduate students of the Federal University of Technology are not aware of when new books are delivered to the library and do not receive notifications of new materials in the library. However, the majority of the students agree that the library has a list of materials, print and non-print, that are of interest to them. Also, most students disagreed that the library recommends books to them via email. This shows a lack of awareness of Current Awareness Services in the FUT Minna Library. A study by Olatokun and Idowu (2018) found that many undergraduate students in Nigerian universities were not aware of the availability of online databases, e-journals, and other electronic resources in their university libraries. This lack of awareness can result in the underutilization of library resources and services, which can impact the academic performance of students.

Also, the survey conducted on the perceived expectations of students from CAS showed that many students want to be aware of new library materials, receive library recommendations on recent materials in their field of study, and receive notifications on the recent happenings in and outside the library. Also, most students want to see library updates on bulletin boards and subscribe to the library newsletter. Research has shown that personalized information services can enhance the user experience and increase the use of library resources (Spiteri & Burkell, 2009).

Finally, determining how the newly designed CAS-UP can influence the use of the library by students, findings showed that most of the students agree that the newly designed CAS-UP can increase their awareness of newly published material in their field of study, improve their intensive and extensive research works, and provide easy access and retrieval of information. The importance of user-centered design in library services focuses on understanding users' needs and preferences and designing services and resources that meet those needs.

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aim to provide users with customized and relevant information based on their individual needs and interests.

Recommendations

The study recommends the following:

1. Increase the visibility of the CAS to library users by promoting it through various channels, such as social media, email newsletters, and posters.
2. Continued use of visually appealing and engaging materials, such as infographics and videos to communicate the latest information to library users.
3. Provide training and development opportunities for librarians to acquire new skills and update their knowledge on current awareness services and related areas such as graphical design.
4. Implement the newly designed Current Awareness Service Upgrade (CAS-UP) to enhance the existing CAS and meet the needs and expectations of library users.

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