



Using Digital Technology to Empower Users with Special Needs at The University of Guyana Library

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ABSTRACT

The purpose of this research is to highlight the digital technology programmes and activities implemented by the Library professionals at the University of Guyana Library, to empower users with special needs. The use of digital technology in libraries is redefining the way information is disseminated and it has influenced the roles of all information professionals. As digital technology evolved, Librarians have been forced to revolutionise their way of operating and employ a variety of ways to adjust; not only to their changing roles but also to find ways to enhance high quality service delivery. These innovations not only brought changes to the delivery services but also served to propel inclusivity for previously marginalised groups, including persons with special learning needs, who are physically challenged, have cognitive challenges, experiencing varying levels of competencies or other socio-economic difficulties. The final benefits being envisioned would be lifelong learning and success in all aspects of student's lives. In this era of digital transformation, University Libraries must therefore combine technology and human interaction in all of its services for access by all to accomplish this vision. Recognising that there was a practice to generalise the user population, even though their learning capabilities differed, Librarians at the University of Guyana Libraries (Turkeyen and Tain) sought to devise ways in which all users would benefit from all of the services offered using digital technology. Through this medium, students with special needs /differently-abled who were often marginalised due to different learning capabilities are now able to have an equal opportunity to access research content with ease. Librarians at the University of Guyana Library have illustrated how the use of digital technology at its academic library has helped to promote scholarship and encourage high quality research by providing online services with remote access and links to external resources. This paper

expands on the digital programmes that the University of Guyana Libraries provides for students with special needs and the measures taken to empower special needs users through digital technologies.

Key words: Digital literacy, special needs, differently-abled, information literacy, digital technology.

INTRODUCTION

The University of Guyana Library

In order to augment the efforts by the University of Guyana (UG) Administrators as outlined above, the UG Library sought to fill the gaps of service delivery to users in the areas of the teaching/learning process. Measures were put in place by making resources readily available for easy access by students with special needs through the use of digital technology.

At the University of Guyana, the libraries play an exceptionally pivotal role in providing information in the print and digital format for academic success. Therefore, it is fundamental to create a barrier-free environment in the library to provide equitable access to library facilities and services offered. As it relates to providing a barrier-free environment, the UG library caters for persons with various challenges.

The focus at the UG Library is on the capabilities and not the disabilities of an individual. The perception of the library professionals is that everyone is capable of achieving a tertiary level of education. The UG Library caters for all persons pursuing educational programs at the tertiary level. One of the main areas on which the technology focuses is providing assistance in the area of Information Literacy. All students from the University of Guyana, including those with special needs, must be able to find, use and understand the information provided to be able to function well in the world of work and in society as a whole, after completing their studies.

To this end this paper serves to highlight the following:

- the activities offered by UG Library to address the challenges faced by special needs Students;
- how the UG Library uses digital technology to assist its clientele with special needs;

Further, the paper expands on the digital programmes that the library provides for students with special needs, for example, software programmes for personal computers and specialised furniture. In addition, it does not only define special needs as persons with mental and or a physical disability but, it also includes persons who might be facing difficulties because of cognitive challenges, different levels of knowledge competencies and other socio-economic issues.

LITERATURE REVIEW

A perusal of the Literature suggests that stakeholders and governments are committed to ensuring minimum barriers for individuals pursuing a formal education. In order to accomplish this task, many governments, including the government of Guyana, for example had sought to adopt the Automatic Promotion Policy commonly referred to as “no child left behind policy”. Thomas (2013) posited that there is a need to embrace inclusive education as a means to serve the equal opportunity paradigm and educational rights for the diverse population which includes persons

with special needs. Similarly, among the United Nations 2030 Goals, are goals which speak to the need for reducing inequality for those concerned (UNESCO, n.d.).

In addition to the definition of *inclusive* by Thomas (2013) pointing to *all students and marginalised groups, not only those with disabilities*, a UNESCO and Ministry of Education and Science, Spain (1994) publication, in keeping with the Salamanca Declaration from 1994, defined *inclusive* to include all groups of students in danger of facing problems in school because of diversity. It is the combination of these two definitions that the writers adopted for this research paper.

Further, the UNESCO (1994) declaration incorporates all students in danger of segregation and their right to participate in common learning activities within the ordinary school system, regardless of special needs, gender, ethnicity, culture and social background. The idea is that education develops human capital for everyone. This is because the role of education in human capital serves as the foundation building the capacity of everyone which leads to improved productivity and posterity. It also serves to enrich life experience resulting in the growth of an individual as well as the development of the society as a whole. Interestingly, most of the international organisations that have shown interest in inclusive education have adopted this wide approach (Haug, 2017).

In order to address the Information seeking needs of all patrons, Librarians will need to be adequately equipped with the requisite skills and techniques. Therefore, to achieve this objective, the University of Guyana library uses digital technologies to empower special needs clientele to aid them to better function in society with the knowledge acquired from the library.

In defining digital technology (DT), Victoria State Government (2019) stated that DT is any electric tool, resource, device or system capable of processing or storing data. Further, the stated that digital learning is any learning that uses technology.

DIGITAL TECHNOLOGIES IN LIBRARIES WORLDWIDE

As it relates to libraries worldwide, Williams (2006) noted that there were 1.5 million people in the United Kingdom with a learning disability and a project was launched to determine how ICT may assist persons with learning disabilities. The project focused on providing routes to appropriate learning materials and accessible contents for persons who had difficulties like short attention span, limited or no functional language and limited motor skills. It was contended by the Library professionals that after completing these exercises, the students acquired a type of digital education related both to their utilisation of ICT, or computerised proficiency which enhanced their comprehension of pictures and symbols characterised as visual education. The article argued that having a physical or cognitive disability hinders someone from learning and achieving if they do not get the right support.

Manorama and Archana (2014) conducted a survey between December 15, 2012 to January 18, 2013 amongst universities within 4 countries; India; the United Kingdom; United States of America and Canada. The survey was executed to determine the number of universities that catered for students with special needs and the facilities each University had and needed to become developed. In their findings, they found that only six (6) out of fifteen (15) of the universities in India introduced digital technologies. At the Department of Extension Education, University of Pune, had assistive technologies for students who were visually impaired. Some of the Assistive Technologies they had

were the workstation, the Tiger Pro Braille embossers, Basic Index DV4, Braille typewriter, Zoom X instant reader. In addition, The Disability Unit of Jadavpur University converts text to audio for the visually impaired students. This survey helped to make persons aware of the digital technologies available within the various countries and illustrates that there is still need for improvement. The study however, failed to provide information pertaining to the success of the study and the benefits derived by the users.

The general perception is that libraries worldwide should have more digital software programmes installed for students with special needs. Apart from feeling welcome, the universities' setting should cater for all students, inclusive of students with special needs. This includes facilities to aid students in need as it relates to physically accessing the library independently.

According to Norazlin, Che Rusuli, and Tasmin (2012), the University Tun Hussein Onn Malaysia (UTHM) library users mostly engage in the Online Public Access Catalogs (OPAC), catalogue, online databases and electronic journals. However, the library also provides other facilities for users such as braille keyboards and have a few large print books and other tactile materials available for the visually or partially visually impaired students. Although the library stepped away from the traditional way, books and pamphlets on sign language or assistive telecommunication devices should be available to cater for students with hearing impairments, high interest, low vocabulary materials and books for students with cognitive disabilities and much more. The library faces copyright issues because they do not own the electronic books that they have available online. Hence, people can only use the information provided for internal references. After reviewing the UTHM library, it is the researchers' opinion that libraries should not completely step away from its traditional format. However, inclusion of assistive technologies are necessary for students with special needs and is vital for equality.

Impact of digital technologies on the services offered at University Libraries

Users' expectation is one of the major concerns in libraries, especially in the provision of services. According to Ferreira and Pithan (2005) as cited in Norazlin, Che Rusuli, and Tasmin (2012), the use of digital technologies in academic libraries focuses on the users' problems, production of meaning, pointing out the efficiency of the information recovery which depends on the integration of the results with the users interaction.

According to Adamou and Ntoka (2017), interviews were conducted in 2015 to find out the impact and effect digital technologies had on students and librarians in Greece. Librarians reported that they found out the learning difficulties of students and devised ways in which they utilized the library to provide the right materials for all students, including those with special needs. However, the majority of the users visualised the library as a 'place filled with books', and rarely used the various tools offered in the library. As a result of budget cuts libraries also found it difficult to maintain the various digital devices for students with special needs. This resulted in a reduced quantity of digital tools for users with disabilities to access.

The effectiveness of digital technology not only targets the special needs students, but it must also include the Librarians. According to Adamou and Ntoka (2017) as the world advances digitally, librarians are forced to be alert to these changes and adapt to be considered as effective. Librarians had to acquire the knowledge and skills required to utilise the digital technologies which helps them

to better provide for the special needs students by demonstrating how digital technologies can be used. Learning to use the digital technologies available within libraries enables special needs students to complete research and understand reading materials. The users feel welcome and a sense of belonging when they realize the digital assistive technologies their school has to offer them.

Importance of Information Literacy for University Users with Special Needs

Gaining skills in Information Literacy (IL) is a fundamental aspect of the University experience for undergraduate students, and provides essential tools for life-long learning. Mittermeyer and Quirion (2003) stated that it was widely recognised that information literacy skills played an important role in academic achievement; it is argued that a deficiency in information literacy skills, may have a negative impact on academic achievement, as well as personal and professional development.

Further, Curzon (2004) as cited in Duncan and Varcoe (2012) is of the view that information literacy supports critical thinking since it emphasises assessing search results for quality, relevance, and evaluating information choices for reliability, validity and authority, before making judgments based upon them.

The University of Saskatchewan (2017), further noted that the current information landscape is often challenging to navigate and that searching strategically for relevant, credible information can be difficult for many students. Understanding how, why and for whom, information is created can also be a struggle. Students are expected to be active consumers and creators of knowledge while participating ethically in scholarly conversations. These challenges underlie why information literacy is important and to this end making student the targets as a special need.

Information literacy is important for today's learners, it promotes problem solving approaches and thinking skills – asking questions and seeking answers, finding information, forming opinions, evaluating sources and making decisions fostering successful learners, effective contributors, confident individuals.

THE USE OF THE DIGITAL TECHNOLOGY FOR SPECIAL NEEDS POPULATION AT THE UNIVERSITY OF GUYANA

The University of Guyana as part of its general registration process, makes provision for prospective students to indicate their special needs and the requisite help they would need to assist them during the teaching/learning process. The special needs students like all other users once registered with the library, have access to the Library resources.

Table 1. Special Need Graduates who used the University of Guyana Library (2009-2017)

Year	Special Needs Graduates (Total Number of Students)	Campus		Registered Special Needs Library Users	
		Turkeyen (Number of Students)	Tain (Number of Students)	Turkeyen Campus (Percentage)	Tain Campus (Percentage)
2009	1	1	-	1 (100%)	-
2010	3	3	-	2 (66%)	-
2011	3	3	-	2 (66%)	-

2012	9	8	1	5 (63%)	1 (100%)
2013	6	6	-	5 (83%)	-
2014	9	8	1	6 (75%)	1 (100%)
2015	2	2	-	1 (50%)	-
2016	5	5	-	4 (80%)	-

Based on the statistics provided by the Registry Division, University of Guyana, (2019) (see graph below), the university commenced the service at the Turkeyen campus with one graduate student in 2009. UG received its highest number of graduates with special needs in 2012 and 2014.

In 2012, 9 students graduated from the University of Guyana with special needs - 1 from Tain and eight 8 from Turkeyen. Sixty-three (63 %) percent (5) of the students with special needs in that year, from Turkeyen Campus, were registered and utilised the library. In 2014, 9 students with special needs graduated; 8 from Turkeyen and 1 from Tain. Of the eight students, seventy-five percent (75%) 6 students were registered with and utilised the Turkeyen Campus library (as depicted in table 1). The numbers continue to fluctuate, depending on the number of students who entered the University of Guyana with special needs.

Registered Library Users with Special needs

The library in keeping with its mandate to support teaching and learning activities of the University community, recognized the importance for the procurement of special equipment to enhance the capabilities of persons with disabilities. The graph below indicates the number of registered members of the library with special needs who have graduated from UG (Turkeyen and Tain Campus Libraries between 2009 - 2017.

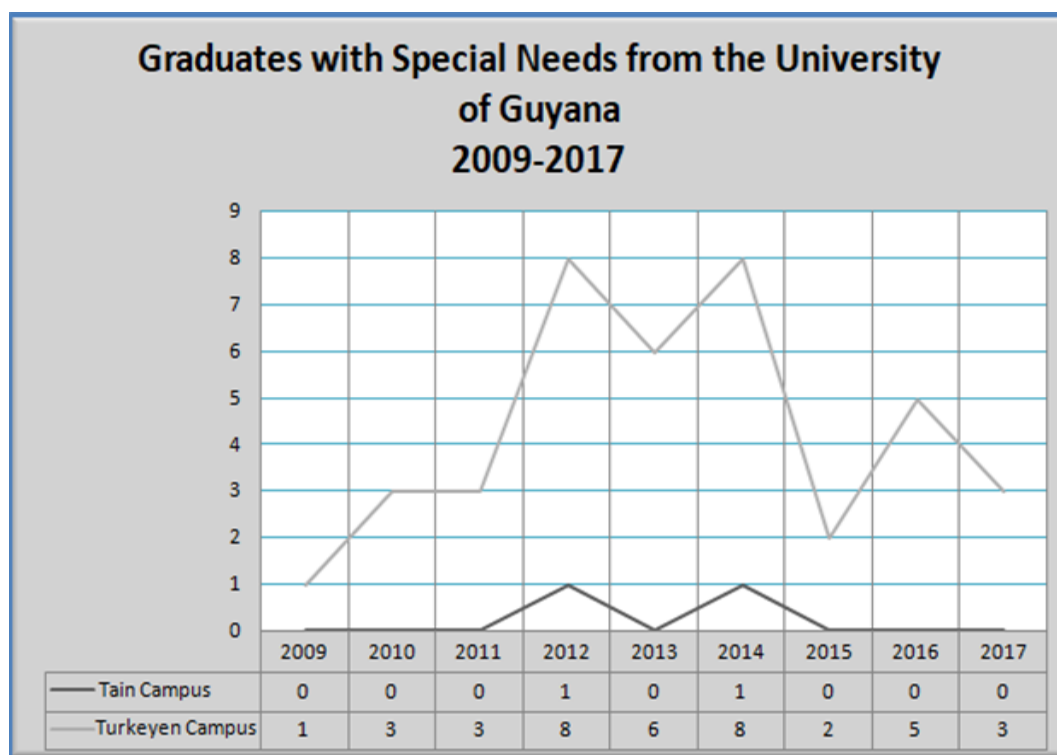


Fig. 1. Graduates with special needs from the University of Guyana 2009-2017.

As a part of the online registration process prospective students are required to state any challenges they may likely to experience and what special assistance they may require of the university. The information provided are monitored and validated by the Registry and made available to lecturers to substantiate student's requests for specified assistance if the need arises. However, some university lecturers would have indicated that some students do not accurately state their real needs in the initial application. It is only while they are pursuing their studies that some limitations are observed. According to the records from the Registry Division, University of Guyana, persons who registered with the University of Guyana between 2009 - 2017 indicated areas of special needs as listed in Table 2:

Table 2. List of disabilities and special needs of registered University of Guyana students - 2009 – 2017.

Disabilities	Special Needs
Dyslexia, Asthma, Mental Disability: Psychosis, A slight hearing problem; Damaged kidney, Can be affected during an exam	Individual attention for IL sessions., e.g. how to use the computers to find information
- Blindness, near sighted, visually impaired - Suffered from stroke which greatly affects sight	- assistance on how to use the assistive technology equipment - Needed text/ info in soft copies
Physical disabilities: -walking disability and therefore cannot stand for hours or climb heights; -Diabetic nephropathy where there is damage to the nerve in the legs and from time to time sudden burst of pain in my legs occur;	Individual attention for IL sessions., how to use the computers to find information
Allergies- cannot cope in a surrounding that is not cleaned regularly. Allergic to dust, smoke, high scented perfumes etc. and also to all sea foods except fish. Requesting that there is proper ventilation because they are claustrophobic.	May have to work from home and requires resources in soft copies
Have Scoliosis which causes upper and lower back pains and sometimes short of breath.	The University can help by excusing me from classes if the pain becomes too much and be able to take the classes at another time. Send soft copies of info via phone and emails
Lost right arm to Cancer in 2017 but fortunately enough, I am a left-handed individual so I perform duties extremely well using my left hand.	The Assistive technology special keys computer keyboard can help to do assignment

THE USE OF DIGITAL TECHNOLOGY AT THE UNIVERSITY OF GUYANA LIBRARY

Keeping abreast with the use of the technology, the UG Library implemented various mechanisms designed to promote and improve the effectiveness of Library and Information services to its users, including special needs students. At the University of Guyana these groups include, but are not limited to university students but also to all users of the Library's resources. This includes persons from the Guyanese communities such as schools at the primary and secondary levels and government ministries. These groups of users with special needs benefit in several ways.

The use of technological equipment, such as the computer and the Internet connectivity was not an automatic process for many people. Many users were and continued to be challenged to use the basic computer as well as how to navigate the World Wide Web to gain access to information. Such

persons are also classified as having special needs, and therefore required individual attention instead of the regular large class tutorial sessions held by library professionals. The UG Librarians provides one on one sessions with such users to assist them in the use of computers particularly in navigating the web to source relevant information for their assignments.

Another way through which users with special needs benefits at the UG Library is from the donation of Assistive Technology Project to the UG Library.

The Assistive Technology Project

According to D. Lowe, personal communication, January 29, 2013, the University of Guyana Library began receiving digital assistive technologies for users with special needs in September, 2010. She noted also that the, new digital technologies, with funding sourced through the Government of Guyana from the United States Agency for International Development (USAID), were introduced into the UG library in June, 2011.

Lowe further noted that the rationale for the Assistive Technology equipment being house at the University of Guyana Library was to make available up-to-date technology for the differently-abled users to access information online. The perception at the time was that differently-abled users were at a disadvantage to conduct research since most of the students were not equipped with the requisite technological infrastructure. The overall goals of the Assistive Technology Project were to:

- To enhance the quality of life and opportunities for individuals with disabilities.
- To ensure that patrons are given the best available service at all times.
- To improve the functional capabilities of individuals with disabilities
- To help individuals with disabilities have access to Assistive technology devices and services

The Assistive Technology Project not only made the tools available but it was easily accessible for all special need university students as well as persons within the wider Guyanese community. Hence, with the digital technology equipments the University of Guyana library was able to promote opportunity for learning in a balance and diverse atmosphere.

Equipment acquired by the UG Library for Special Needs Patrons

Special needs users often need assistance in communication, movement and decision-making. Rockman and Associates (2004) noted that the underlying issue today is quite a lot of information on the World Wide Web created in different formats, putting pressure on the users. However, as information professionals, we are task with the responsibility to share, teach and update our users. Through the donation of the Assistive Technology Project to the Tukeyen Campus Library, a number of equipment were received, all of the which are user-friendly and easy to use. The use of the equipment is not restricted to students at the University, rather it is accessible by persons with special needs across Guyana. The list of equipment are as follows:

- The iCommunicator with Dragon naturally speaking is a software programme which promotes independent communication for persons who are deaf or hard of hearing and encourages increased literacy.
- Freedom Scientific's SARA™ (Scanning and Reading Appliance) is a reasonable and simple to-utilize digital tool for those with low vision or who are visually impaired or deaf-blind.

The SARA empowers the perusing of a wide assortment of literature including books, reports, mail, papers, magazines, thus considerably more.

- The SARA works like a PC scanner that perceives content, makes an interpretation of it into discourse, and then reads the content out loudly so anyone might hear.
- The Half Qwerty Keyboard is specially designed to aid computer users who are impaired. Users have the full functionality of a full keyboard on either the right or left side of the keyboard.
- IntelliKeys USB which when plugs into the computer's USB port provides access for anyone with physical, visual, or cognitive disabilities who has difficulty using a standard keyboard. In blend with its many overlays, it is the most adaptable keyboard accessible, giving individualized help to students with special needs.

The development of sophisticated digital assistive technologies such as half QWERTY keyboards, topaz desktop video magnifier, iCommunicator kit, jaws screen reading software and adjustable furniture empowers clientele with special needs to conduct basic research in the library. Discovering a library with digital technologies specially made to assist our users with special needs makes them feel welcomed, appreciated and accepted for who they are. The digital technologies are accessible to the differently-abled throughout the working hours of the library and makes learning easier and information easily accessible.

While at the Tain Campus Library there were no special equipment procured as was mentioned above, they utilised the following:

- JAWS screen reader for visual impaired, this user-friendly screen reading software transforms a computer into a “talking computer” enabling the student to use the computer independently.
- Microsoft narrator – this screen reading app reads everything a loud everything that is displayed everything on the computer screen

Action Taken to promote the use of the Assistive Technologies

On receipt of the equipment for the Assistive Technology Project, the Librarians at the UG Library immediately sought to devise measures to ensure maximum use. To accomplish this a number of activities were conducted:

- Marketing Strategies were employed, that is, measures were implemented to ensure that there was widespread awareness of the equipment. To this end, the Deputy Librarian became engaged in various interviews with the media on both the radio and television. This was to not only capture the differently-abled students at the university, but also other differently-abled persons in the wider community.
- Designed a special section in the library to house the equipment which caters for persons in a wheelchair.
- Ensured that an adequate number of library professionals were trained and retrained to use the equipment to provide a service to the users.
- Collaborated with the Registry Department of the University and a representative from the differently-abled community on campus to put systems in place jargon to ensure maximum access in all spheres of the lives of the differently-abled students. To achieve this, attempts were made to be familiar with the programme/courses being pursued by the differently-

abled students at the university. The library professionals would then gain access to the reading resources directly from the lecturers and convert the reading material through the various media or formats based on the needs of the users. The rationale for this process was to enable the differently-abled students to gain access to the reading materials without having to purchase the resources in a format that is not useful to them, therefore, time and money may be saved.

Moreover, while the library professionals worked arduously on implementing processes that cater to special needs users there were some amount of hurdles encountered due to circumstances beyond the Library's control such as:

- Lack of commitment to the collaboration with a specific department to provide certain information of users with special needs e.g. the programmes the students were registered to undertake.
- Inability to access all of the particulars for each differently-abled students from the Registry Department since they were deemed as confidential.
- No facilitation of the requested link between the library personnel and the lecturers for the specific programmes for the commencement of collaboration. This resulted in limited or no submission to the library of handouts for conversion into the usable format for the special needs students by the Lecturers.

However, efforts to assist the differently-abled continued through the use of Assistive Technologies equipment given that the UG Library had undertaken to make the resources available and accessible to users. Recently, the library sought to revisit the collaboration with the Registry Department to resuscitate its efforts to better serve the differently-abled population on campus. However, the Library professionals continue to promote the use Assistive Technology equipment at various Faculty Boards as a part of its marketing strategy to promote the availability of the resources for the differently-abled.

Remote Access to Information

With the implementation of the devices from the Assistive Technologies Project persons with special needs (such as the visually impaired students) are now able to search the internet and retrieve information from the UG Library Online Public Access Catalogue (OPAC) which is available to all students. To achieve this, the library installed a software on the Assistive Technology computer which has the capacity to allow the visually impaired to dictate to the Koha ILS browser and the software conducts the searches; thereby allowing access to information in the various databases by users with special needs as is done for regular users.

The UG Library OPAC is powered by Koha, which is an open source Integrated Library System (ILS), used worldwide by public, schools and special libraries. Persons have access to thousands of books within our catalogue on our portal @ <https://library.uog.edu.gy:81/cgi-bin/koha/opac-search.pl>. Visually impaired persons may utilise the Dragon Naturally Speaking tool (installed on computers) which acts as a screen reader, and can have speech transcribed as a text when using the library to access our portal for information. The digital technology may be used to access any website or document and aids in guiding persons with special needs along the right path.

While the digital Assistive Technology allows persons to participate equally in educational opportunities, no study was done to capture the impact of the use of the available equipment on users with special needs.

Social Media presence

Both the Turkeyen and Tain campus Libraries have made information available to users with special needs through the use of social media platforms including twitter, Facebook, WhatsApp; whereby various library-related information is offered. Users are no longer barred by time or space but rather, their research and contact with the library professionals can be done from anyplace and anytime providing a constant link to acquire information especially for students and lecturers who have busy lives but yet commits to professional development and may not have the time to visit the library in person. Through social media, information becomes available and accessible to users who are incapacitated and hospitalised or experiencing financial challenges to be on campus on a daily basis.

Additionally, the use of social media serves to be a mechanism for users who have a constraint, which is classified as a special need, in terms of limited finance to traverse from home to the physical library. The Tain Campus Library has attempted to keep the users informed through the smartphone. This is in keeping with what Tiemo and Edewor, (2011), argued, that the use of Social media, as typified in library 2.0 model, has increasingly become a part of libraries tools for enhancing library services and resources, particularly regarding to users with special needs.

The use of social media at the Tain Campus also aligns with what Baro and Asaba (2010) posited, in that many libraries are effectively using twitter to communicate services like opening hours of operation, new arrivals etc., while others have developed applications that enable users to search catalogs from within Facebook, others are also using cell phones to alert users about different services in the Library. Social media has therefore become one of the leading tools to disseminate information to users who have special needs.

In the academic year 2017/2018 Library professionals at the Tain Campus library commenced the use of smartphones to provide users with pertinent information. Later, a survey was conducted to assess the use of the smartphone as a means of communicating information to users. The findings revealed that the users considered the use of smartphone as very beneficial to them since they were able to experience the following:

- Timely updates on the request,
- Receives Library and University events, news and notices,
- Able to book computers and other equipment,
- Reserve books, materials,
- Send and receive feedback in real time.

Through the UG Library portal the following activities are done to particularly aide users with special needs:

- New titles are sent to lecturers and students personal accounts both through the use of the e-resources or traditional sources.

- Books outstanding can be updated on a request by client who may be challenged to go to the physical library.
- Without visiting the library users who are financially or otherwise challenged receives Library and university events, news.
- Enables users to search for library materials, Catalogue searching, using databases and e-books.
- Reserve books, materials and access the cover image of materials, Read a summary of work of interest
- Obtain item availability information, view their account
- New title that are available can be seen without visiting the library
- Send and receive feedback in real time
- The latest additions to the library collections are highlighted through our book exhibitions which are photographed and uploaded to our Facebook account. This allows our followers to keep updated with our resources.

As a result of the use of the UG Library's portal, access to information stored at the UG Library became possible to those persons in Guyana's outlying areas, who can be classified as having a special need as proposed by the IFLA's (2018) definition, which refers to users who are challenged because of their distance from the physical library.

Information Literacy Skills (IL)

Library professionals have realised the importance of information literacy and have attempted in various ways to address this issue. The University of Guyana Library has taken up the role of assisting in the development of problem solving and creative thinking skills through Information Literacy (IL) training for students. Information Literacy has become a special need for persons in this information era according to Gross and Latham (2009).

At the University of Guyana students are engaged in research writing for course work assessments, compilation of thesis research and other aspects of required work in order to complete studies. Research writing includes both practical and theoretical research for students to acquire experience and a better understanding of the field in which they are engaged. Qualities in research writing also applies to students with special needs. The library functions as a problem-solver for the theoretical aspect of users with special needs, studies with the aim of giving them the opportunity to function individually and collectively.

The UG Library Information Literacy Skills (IL) programme gives students the opportunity to locate, evaluate and use information effectively and how to avoid plagiarism and uphold academic integrity at all times. In fact, graduates and current students (inclusive of those with special needs) are able to do research on their own and function within organizations once they would have utilized the resources offered to them by the University of Guyana Library. While the regular IL sessions are usually done in the classroom with a large number of students, the Library professionals have recognised that some students may require a more hands-on approach to learning and would require one-on-one sessions. To realise this, special sessions are organised for users with special needs. This can be done in small groups or on an individual basis. These sessions were designed specifically for those users who are challenged differently.

At the UG Library, rather than wait for the students or lecturers or the general population to visit the Library, steps are taken to reach out to them so that their specific needs are realised. These services are also extended to:

- Secondary schools' students;
- Students from the Institute of Distance and Continuing Education (the extramural arm of the University);
- The students and lecturers from the Cyril Potter's College of Education.

While the Library professionals at UG Library are cognizant of the fact that its IL programmes are designed to benefit all students and lecturers who are also researchers, they sought to make the programme specialised for those persons who have special needs.

These students, particularly the older population who have a preference for the printed materials as against the use of the technology and those who are not computer literate and would otherwise "fall through the crack" during a large class IL session, are given individual or small group sessions until they grasp the concepts. To address the needs of those users and others who have learning disabilities such as learning in the abstract and therefore require direct contact with the computer during sessions, timetables were prepared by UG Library staff to provide the one on one IL sessions at a time convenient to the users.

The IL support provided by the professionals at the UG Library comes in the form of:

- Instructional support
- Individualised consultation
- Reference service - Ask a librarian

Online Searches

According to Rockman & Associates (2004), the overwhelming available information in varying formats on the Internet can be considered as a major issue for some users. Additionally, Mackenzie (2003), noted persons sometimes may experience information overload when conducting online searches which can become overwhelming. These users need help in filtering information and guidance to other information sources which are more suitable or familiar. Given that the UG Library subscribes to various resources which are presented in various formats, it became necessary for us as information professionals to provide assistance to users who requires this service as a special need.

Consequently, the library professionals conduct group and one-on-one demonstration *of the online catalogue*. While the Library offers orientation sessions for students throughout the year, special sessions are conducted with users who were challenged during the regular sessions and have specific needs. These sessions were organised because the UG library professionals recognised that students have different learning capabilities and may require additional assistance.

CONCLUSION

In concluding, the UG Library professionals have sought to embark on the journey of implementing various steps to ensure that there is equity of access to information for all of its users through the information technology, including those persons who have special needs. However, there is still

need to pursue and/ or acquire other programme to meet the needs of those other persons seeking access to the university with other areas of special needs which have not been addressed.

While there exist some key resources to aid users with special needs at the UG Library, they are not adequate to really address all the concerns of those users. It is clear that having access to digital technologies and making it available is just one stepping stone to having a fair and balanced information sharing system within the library. In fact, being able to manipulate the equipment and to communicate through the various medium is the key to connecting with special needs users.

As much as the UG Library has the digital technologies to promote information and digital literacy, attempts at implementation are still a work in progress. There is still a need for improvement which will better serve students with special needs or the differently-abled.

Although the UGL have some digital equipment and services designed to assist users with special needs, there is still a lack of some basic practices which would allow access to the physical structure of the library building for persons who may want to browse the print collections with the hope of finding information by serendipity. In addition, from a University standpoint, the University Administration needs to take a more holistic approach about inclusivity and ensure that the basic facilities such as adequate car parking, accessible washrooms on all floors, ramps and elevators are provided for users who are differently-abled

In order for the library professionals can enhance the services offered to users with special needs is through training sessions and workshops. This will facilitate the provision of services on a broader scale with more efficiency. Attendance at training and workshop sessions should better prepare library professionals to interact with users who have special needs.

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