

*Towards Academic Library Support for Entrepreneurship: A Blueprint for Reinventing our Role*

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**Abstract**

The entrepreneurial model of university education is present in many higher education institutions globally. When the University of Trinidad and Tobago (UTT) was established in 2004 this model was applied. As one of the main support networks that aid in the delivery of teaching and the conduct of research, UTT Libraries has to go beyond the provision of traditional collection development, bibliographic instruction, reference work and document delivery services, in order to help the University to achieve its entrepreneurial mission. This paper provides a blueprint for UTT Libraries to reengineer services and improve staff competencies to fulfil the university's mission.

**Keywords:** Martha Ingrid Preddie; Academic Libraries; Entrepreneurship; Libraries; Library Planning; University of Trinidad and Tobago.

## **Introduction**

An entrepreneurial university can be described as a “model that incorporates the additional role of the commercialization of knowledge and active contribution to the development of private enterprises in the local and regional economy” (Wong, Ho and Singh 2007). The University of Trinidad and Tobago (UTT) is the first entrepreneurial university in Trinidad and Tobago. The University’s entrepreneurial focus is manifested through its programme offerings and the myriad activities in which it is engaged. To help UTT achieve its mission, UTT Libraries is mandated to deliver more than the provision of information support through the traditional collection development, bibliographic instruction, reference and document delivery services. UTT Libraries needs to provide services that are akin to those offered by libraries that support business schools with an entrepreneurial focus. Opportunities exist for UTT Libraries to engage in strategic initiatives to support the entrepreneurial mission of the University. This paper provides a blueprint that can be used for how UTT Libraries could proceed in this regard. The proposed initiatives include the revision of the Libraries’ mission statement, provision of support through business-focused information resources, restructuring of the Libraries’ information literacy programmes, and development of revenue generating products and services along with community outreach activities. The paper also presents the educational requirements, as well as the competencies and skills that will be required of library staff, to enable them to shift to the entrepreneurial paradigm. This blueprint could serve as a model for other Caribbean academic libraries that may be aspiring to support their institutions’ entrepreneurial endeavours.

## **UTT’s Entrepreneurial Thrust**

Founded in 2004, the mission of UTT is:

To be an entrepreneurial university designed to discover and develop entrepreneurs, commercialise research and development, and spawn companies for wealth generation and sustainable job creation towards the equitable enhancement of the quality of life of all individuals, families and communities of the Republic of Trinidad and Tobago and the Caribbean. (University of Trinidad and Tobago 2013)

UTT’s teaching and research programme offerings include: engineering, health sciences and biomedical engineering, education, nautical science and maritime operations, sports, performing arts, fashion, visual arts, agriculture, animal science, food technology, and security and public safety. At present, several programmes include an entrepreneurial component in their courses and some of these are featured in Table 1.

**TABLE 1: UTT Entrepreneurship Courses Offered in Programmes**

<b>PROGRAMME</b>	<b>LEVELS AND SPECIALISATION</b>	<b>ENTREPRENEURSHIP COURSE</b>
Animation Studies	Diploma in Animation Studies	Animation, Entrepreneurship and Marketing
Sport Studies	Bachelor of Science (Management)	Sport Entrepreneurship
Sport Studies	Executive Master’s	Sport Business Leadership
Sport Studies	Executive Master’s	Sports Marketing
Biomedical Engineering	Bachelor of Applied Science	Entrepreneurship, Management and Business Practices
Carnival Studies	Master of Arts	Caribbean Carnival and Culture Proseminar in Ethnomusicology
Performing Arts*	Bachelor of Fine Arts	Cultural Entrepreneurship Entertainment Industry Business Seminar Teaching Artist Training Residency in Community Arts
Fashion Design	Bachelor of Fine Arts and Diploma in Fashion Management	Entrepreneurship
Maritime Studies	Master of Science in Maritime Management and Bachelor of Science in Nautical Science/Maritime Operations	Business Practices and Entrepreneurship
Food Science and Technology	Bachelor of Science	Entrepreneurship
Animal Science and Technology	Bachelor of Science	Entrepreneurship
Crop Science and Technology	Bachelor of Science	Entrepreneurship

Information and Communications Technology	Bachelor of Applied Science and Master of Science	Entrepreneurship, Management and Business Practices
Education	Bachelor of Education	Entrepreneurial Studies
Manufacturing and Design Engineering	Bachelor of Applied Science	Entrepreneurship, Management and Business Practices
Process Engineering	Bachelor of Applied Science and Master of Engineering (MEng)	Entrepreneurship, Management and Business Practices
Petroleum Engineering	Bachelor of Applied Science, and Master of Engineering (MEng)	Business Practices and Entrepreneurship

\*Entrepreneurship is also a component of all Ensemble Development Courses III-VI. Students are also exposed to entrepreneurship in practice through the Co-op/Internship programme that pairs students with practitioners.

The taught Master’s programme in Environmental Science and Management, while not having a specific entrepreneurial module, offers career courses namely Environmental Impact Assessment, Environmental Monitoring, and Quantitative and Qualitative Risk Assessment. These courses are all areas in which individuals can undertake to pursue a career either as an employee or become self-employed in their own consultancy business. Additionally, students are taught Economics, Law and Policy and Organizational Environmental Management. These comprise some of the business and management fundamentals that are needed to become successful managers and entrepreneurs. Similarly, students pursuing the Visual Communications Design Diploma programme are exposed to the principles of entrepreneurship through courses in Marketing, Finance and Design and in their portfolio preparation.

In keeping with UTT’s mission, innovation and entrepreneurship in education are highly evident in the Centre for Education programmes. In 2006, the University embarked on teacher training, leading to the award of the Bachelor of Education (B. Ed.) degree. This degree prepares trainees to teach in both the primary and secondary school systems of Trinidad and Tobago. One of the specializations offered is Agriculture Science and the syllabus for this specialization was developed against the background of UTT’s entrepreneurial mission. It fits the model described

by Wong, Ho and Singh (2007) as it was developed in the context of the need to reduce the country's high food import bill and to address the aging and decreasing farming population, the decline in the number of students pursuing the Caribbean Examination Council's (CXC) Agriculture course of studies, and the prospect of the introduction of Agriculture Science at the Caribbean Advanced Proficiency Examination (CAPE) level. From the inception of this programme it was decided that entrepreneurship was central to accomplishing this formidable task and that the final "product" would be "an entrepreneur who could teach agriculture" (Davis, Wilson and Hospedales 2012).

To date the outcomes of the Bachelor of Education (Agricultural Specialization) degree include novel ways of preparing curricula, the inclusion of the international Global Learning and Observations to Benefit the Environment (GLOBE) programme<sup>1</sup> into the curriculum, the growing of food, the undertaking of urban and peri-urban agricultural practices, and the establishment of agriculture based businesses by students.

The University's entrepreneurial thrust is also evident in the annual Business IDEAS and Business Plan competitions where faculty, staff and students are encouraged to submit ideas that can spawn new business ventures. A novel facet of the IDEAS competition is the Master's/PhD Research Innovation and Commercialization Initiative (RIC). Introduced in 2013, RIC will facilitate and support the generation of ideas for businesses based on the research of students graduating with higher degrees. RIC aspires to stimulate and support a spirit of technology innovation and enterprise among UTT's graduate researchers. The initiative encourages graduate students to consider commercialization of their research in order to create economic and social value, beyond the academic requirements of their degrees. Plans are also afoot to develop university spin-offs, whereby UTT will partner with past students to

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<sup>1</sup> The GLOBE Programme which began in 1995 is "a world-wide hands on programme, primary and secondary school-based science and education program" which "promotes and supports students, teachers and scientists to collaborate on inquiry-based investigations of the environment and the Earth system..." <http://www.globe.gov/about-globe>

set up businesses, partially funded by the University, as a means of investment in entrepreneurial ventures.

In order to educate the university community about entrepreneurship, UTT also hosts an annual *Entrepreneurship Knowledge Series*, comprising face to face and online workshops on business related topics. In 2013 the workshops included:

- An Introduction to Grant Writing
- Developing and Submitting Winning Ideas: IDEAS Competition 2013
- Negotiating Grant Agreements: Legal and Contractual Aspects
- Successfully Managing Research Projects

In September 2012, UTT hosted a three-day entrepreneurial conference titled "*The Role of Universities in Entrepreneurship for Socio-Economic Development: UTT's Response.*" The conference was aimed at showcasing the University to its stakeholders and the national community in order to provide them with a better understanding of UTT's innovative and entrepreneurial activities, and to seek their buy in, as it strives to fulfil its mission. At the conference, presentations in the sub-theme of cultural entrepreneurship examined the opportunities available in Arts and Culture for economic development and nation building. Innovation and entrepreneurship, through the use of technology, were depicted in work conducted in the Information and Communications Technology (ICT) programmes. Demonstrations included the use of biometrics and haptics technology for security verification, which can be used in a variety of settings where user identity verification is required e.g. in the banking industry.

Innovative research activities in progress at UTT which would benefit the agricultural sector were also featured. These included the breeding of multi-purpose hot peppers and the extraction of their fixed oil (capsaicinoids) for pharmaceutical use; the incorporation of cassava into animal feed rations; the generation of indigenous protein sources (Tricantera and Moringa) for ruminants, and the enhancement of the shelf life, taste and appearance of sugar cane juice.

These initiatives have the potential to produce economic gains for the national and Caribbean agricultural sectors, on account of the cost competitiveness which can be derived from savings in animal feed, or from the generation of income from the sale of new or enhanced products, as in the case of peppers and cane juice.

Other presentations featured entrepreneurial and innovative research activities related to the energy and public utilities sectors. In terms of the latter, 2012 doctoral graduate, Franklin Ali's ground breaking research on the use of the Management Operator Model for Postal Reforms in Trinidad and Tobago and four other countries (Ali 2012), culminated in a redesign of the Model to facilitate sustainable postal reforms in developing countries. Since the public utilities sectors in Trinidad and Tobago and other developing countries are typically challenged to provide high quality service, and more often experience unprofitability and continued erosion of market shares, the Model has potential applicability to other public utility services. Ali's (2012) research typifies the outcome expected of doctoral studies at entrepreneurial universities, in that they provide valued information for solving socio-economic problems.

UTT is also increasing its scholarly publications on entrepreneurship and has published *Entrepreneurship in Trinidad and Tobago: The Black Experience* by Selwyn Ryan (2012). This book explores the history of black entrepreneurship in the country from the Pre-Emancipation Era to the Post-Independence Era. It is a noteworthy publication as it fills a gap in the history of entrepreneurship in Trinidad and Tobago. Ryan's work presents a comprehensive treatise and distinguishes itself from his previous work (Ryan and Stewart 1994) on the subject through its examination of black entrepreneurs and their competitors (the Syrians, Chinese, Indians and Portuguese) during the period 1870s to 1950s. He examines factors such as the impact of ethnicity, family networks, access to funding by financial institutions and interest in formal education on the development of entrepreneurship among blacks. Ryan posits that the lack of supportive ethnic and family networks, the difficulties experienced by black people in procuring funding from banks and money lenders, and the priority given by blacks to formal education, as

a means of achieving socio-economic success, have had an adverse effect on the growth of entrepreneurship among blacks. Notwithstanding this, Ryan concedes that the number of black or coloured persons who formed part of the business elite in the early 20<sup>th</sup> century was more numerous than previously believed, and presents a chapter about the entrepreneurial undertakings of such persons.

### **UTT Libraries**

The University of Trinidad and Tobago Library system comprises a network of eight libraries, geographically dispersed throughout Trinidad and a nascent collection at the University's teaching location in Tobago. The UTT Libraries' current mission is to "create a customer-driven information environment that provides materials, services and instruction to support the teaching, learning and research activities of the University and promotes information literacy and lifelong learning." (University of Trinidad and Tobago Libraries 2011)

The UTT Libraries offers a range of services usually available in academic libraries: circulation, interlibrary loan and document delivery, reference, photocopying, library orientation and information literacy training. The collections comprise print and electronic resources that support the teaching, learning and research needs of the University. The UTT Libraries' print and multimedia collection consists of 69,538 items. Though relatively small compared to other university libraries in the Caribbean, this collection contains over 2,200 volumes on entrepreneurship. The libraries also provide access to databases that cover information on entrepreneurship in specific subject areas as listed in Table 2.

**TABLE 2: UTT Databases Supporting Entrepreneurship Research**

<b>DATABASE</b>	<b>SUBJECT COVERAGE</b>
Academic Search Complete	Multidisciplinary
Business Source Complete	Business
CAB Direct	Agriculture, Biosciences, Food Production Technologies
Caribbean Literature	Entrepreneurship in the Caribbean and the Americas
Environment Complete	Energy, Environmental Sciences, Environmental Technology, Marine Sciences, Pollution and Waste Management, Urban Planning
ERIC	Education
IEEE Xplore Digital Library	Computer Science, E-Business, Engineering and Technology Education, Industrial Engineering Management of Technology
InfoTrac Custom Fashion	Clothing Industry, Fashion
Library, Information Science and Technology Abstracts with Full Text	Library Science
MEDLINE with Full Text	Health Administration, Health Sciences Education and Health Services, Social Entrepreneurship, Medicine, Biomedical Engineering
Newspaper Source	Multidisciplinary
One Petro	Petroleum Industry
Oxford Music Online	Music
ProQuest Dissertations and Theses	Multidisciplinary
ProQuest Engineering	Engineering
ProQuest Entrepreneurship*	Entrepreneurship
Science Direct	Multidisciplinary
SPORT Discus with Full Text	Education,,Sports and Sports Medicine

	Leisure Services and Tourism
Textile Technology Complete	Clothing Industry Fashion and Textile Industry

\*ProQuest Entrepreneurship is a comprehensive resource that includes journals, theses, working papers, conference proceedings, sample business plans and other documents used by entrepreneurs. The subject coverage is wide including topics such as entrepreneurial finance, business incubators, home-based businesses, business startups and social entrepreneurship.

### Literature Review

The shaping of the UTT Libraries along the lines of the entrepreneurship model has to also reflect best practices taking place in similar institutions. A review of the literature on library support at business schools with entrepreneurial programmes and at entrepreneurial universities indicates a new role of entrepreneurial outreach for academic librarians in these environments. This role is manifested through various strategies.

At the University of Toronto, an entrepreneurial university, librarians have been providing a market intelligence service to a non-profit organization that offers services to start-up companies (Fitzgerald, Anderson and Kula 2010). Similarly public and academic librarians in rural communities in Michigan have teamed up and used information resources and their professional skills to conduct research, analyze data, and generate reports, as a means of fulfilling the information and knowledge needs of local entrepreneurs and their business coaches (Leavitt, Hamilton-Pennell and Fails 2010). Business librarians at the University of Alabama have supported the university's community oriented entrepreneurial research network by selecting information resources for partner organizations, and providing train the trainer sessions to enable partner staff to train entrepreneurs on how to use library resources. Additionally, they developed and maintained a publicly accessible business website (Pike et al. 2010). In a similar initiative, the business and economics librarian at the University of Toledo in Ohio, has assisted a local economic development organization in establishing a library collection of market research and business education materials, to meet the needs of small businessmen

including entrepreneurs. In this regard, the librarian served as a collection development expert consultant, while also fulfilling the University's mission of assisting the community with local economic development (Martin 2010). In like manner, the Management & Economics Library at Purdue University, Indiana, has collaborated with Purdue Extension to provide entrepreneurial information to the community, via dedicated computers at off-campus Extension office locations (Kirkwood 2010). Purdue Extension is an entity that provides the residents of Indiana with educational programmes and research based information in the spheres of agriculture and natural resources, health and human services, youth, economic and community development, with the aim of improving peoples' lives and their employment opportunities (Purdue University 2013).

Librarians have also partnered with teaching faculty to provide course-integrated library instruction for entrepreneurship and business courses at the point of need, with resulting benefits of having students spend more time analyzing information than on finding it (Campbell and Cook 2010 and Chung 2010). At the same time as they collaborate to find and use information, students develop team building skills that would serve them well as future businesspersons, (Chung 2010). Likewise, at Birmingham Southern College in Alabama, business professors and librarians teamed up to impart skills in effectively searching and evaluating business information, to undergraduate students pursuing an introductory business course (Mc Innis Bowers et al. 2009).

Although not in the context of library support at business schools with entrepreneurial programmes or at entrepreneurial universities, a unique approach to supporting entrepreneurs was undertaken by Library and Information Science students at the University of Syracuse. These students received a grant and embarked on an initiative called BOOST (Bolstering Original Opportunity and Self through Technology). Students in this project provided training in Outlook, Excel and Searching for Information on the Internet to displaced homemakers, women who had been out of the workplace for an extended period of time, while tending to their

families. Due to a variety of reasons these women had found themselves without income, and needed technology related training to assist them in returning to the workforce, either as employees or as entrepreneurs (Dischiave and Posner 2010).

### **Strategic Initiatives For UTT Libraries**

Opportunities exist for UTT Libraries to engage in strategic initiatives to support more fully the entrepreneurial mission of the University. These initiatives are outlined in the context of a proposed new mission statement as follows:

*To create a customer-driven information environment that provides library collections, services, staff and facilities that support the teaching, learning, research, innovation and entrepreneurial activities of the University. To this end UTT Libraries shall provide innovative services and comprehensive access to information, for the benefit of the staff and students at the University and the wider community.*

This new mission introduces the ideas of entrepreneurship and innovation to the statement, while aligning it to the wider mission of the university. It therefore means that the services and resources of the Libraries would also have to be realigned to fulfil this mission.

#### *Provision of Business-Focused Information Resources*

While the library databases identified previously provide comprehensive access to information on entrepreneurship there is still a need for additional information resources including those related to the local environment. Information in the categories listed below would serve to enhance UTT Libraries' information support for entrepreneurship:

- Setting up and registering of local businesses (including legal and taxation requirements)
- Marketing of business enterprises
- Product and service trends
- E-Commerce
- Funding sources/organizations supporting entrepreneurs (including governmental, private sector and international agencies)
- Intellectual Property (patents, trademarks, etc.)
- Continuing education opportunities for entrepreneurs

- Business competitions (locally, regionally and internationally)
- Business directories

In support of the provision of business focused information resources UTT Libraries needs to consider acquiring Standards and Poor's NetAdvantage. This database could be useful to the UTT community because it is a comprehensive source of business and investment information including industry surveys and company analyses globally. One of the entrepreneurship and innovation "faculty champions" at the University has already recommended that a Standard and Poor's database be purchased.

To further market the concept of entrepreneurship and the resources to support the research, teaching and study of it, the Libraries' website has to be re-examined. One immediate suggestion is to include a page dedicated to resources on entrepreneurship and innovation on the Libraries' website. The website can be further enhanced based on feedback and research queries received in this area.

#### *Restructuring of Information Literacy Programmes*

Information literacy programmes are provided by all campus libraries. Library staff provides training in: the use of the online public access catalogue and subject specific databases; the use of citation manuals, and how to avoid plagiarism. In the 2008/2009 academic year, library staff developed and taught a 3-credit information literacy course for diploma students at the Eastern Caribbean Institute of Agriculture and Forestry (ECIAF) campus; however this course was discontinued due to timetable constraints. For the past two years the new strategy adopted to replace this service was to embed information literacy skills into existing courses. Initially this started as a pilot project with students enrolled in the Diploma in Agriculture and the Diploma in Animal Health, Production and Veterinary Public Health. For the 2012/2013 academic year the development of these skills has been embedded into the Effective Communication, Teamwork and People Development course offered to BSc students in Animal Science and Technology, Crop Science and Technology as well as Food Science and Technology.

Similarly, in academic year 2012/2013 Information Literacy was also embedded into the Action Research course offered to undergraduate third year students pursuing the Bachelor of Education programmes at the Valsayn and Corinth campuses, under the concept of “*UTT Library as a Research Tool*” (Ransome 2013). The course modules were used by faculty and library staff to introduce students to primary and secondary sources of information. Students were also shown how to access the UTT Libraries’ website, how to construct database search strategies and how to evaluate other websites. Instruction in the American Psychological Association (APA) referencing and the use of RefWorks bibliographic management programme were also provided. An assessment of the achievement of learning outcomes was conducted through the library generated homework assignments that were given to students, to reinforce what was taught and gauge information retention.

The initiatives undertaken by these campus libraries present a model for embedding information literacy skills into entrepreneurial courses at the University where library staff would focus on co-teaching in these courses. This would require librarians to familiarize themselves with the content of such course offerings and to collaborate with faculty to identify where information literacy skills development can be embedded. Assignments that involve conducting market research and competitor analyses, assessing business problems and determining feasible solutions are but a few activities where librarians can seize the opportunity to develop student competencies in identifying information needs, selecting appropriate sources of information, developing search strategies for database searching, evaluating information, synthesizing information and presenting their research outcomes. The specific strategies utilized by librarians would depend on the matriculation level of students, their previous exposure to library instruction, the learning objectives of the specific entrepreneurial course, and the types of assignments planned by the faculty member. In addition to face to face activities, self-paced online tutorials can be utilized.

### *Revenue Generation*

The UTT Libraries can also explore the provision of fee-based products and services to entrepreneurs and companies such as:

- Business-related information searches
- Access to library services and resources, online and in library
- Training in database searching
- Loans of print and electronic books
- Business-related current awareness bulletins
- Business-related Selective Dissemination of Information service
- Business-related surveys

The proposed initiative of conducting business-related surveys requires a tripartite approach involving a partnership with members of faculty, librarians and UTT's Business Development and Marketing Unit (BDMU). In this regard, the librarians have the competencies to create, market and disseminate electronic surveys. As the business arm of the University, the BDMU is in a position to market the service to potential customers - companies and entrepreneurs, (including those in small and micro enterprises), while the cooperation of faculty would be needed for questionnaire design, analysis of survey findings and in the compilation of survey reports.

It is envisaged that these revenue generating products and services would be beneficial to companies in the sports, agri-business, ICT, fashion, security, animation, visual arts, animal sciences, engineering, marine services, education and performing arts sectors, areas which the UTT Libraries' print and electronic collections currently support. UTT alumni, particularly those who have graduated from the Industrial Innovation, Entrepreneurship and Management programme and those who are self-employed/business owners could be targeted directly through UTT's student services graduate tracer surveys.

The revenue generated from these activities could be used to subsidise the purchase of information resources including databases, and the cost of staff training and development activities.

#### *Community Outreach Services*

The community outreach services which UTT Libraries could undertake in support of the University's mission are as follows:

- The establishment of an oral history project to record the life and business activities of entrepreneurs in Trinidad and Tobago. The recording of the histories of female entrepreneurs should be a separate area of focus.
- The provision of and access to the oral histories in digital format on the UTT Libraries' website.
- The development of a series of public seminars comprising dialogue sessions with local entrepreneurs.
- The promotion of business information resources to the wider community.

In addition, partnerships could be established with governmental agencies such as the Ministry of Labour and Small and Micro Enterprise Development (MLSMED) and the National Entrepreneurship Development Company Limited (NEDCO) to promote business information resources in the community. This initiative would be aimed at providing training to entrepreneurs in small and micro enterprises, in the use of business related information resources and assisting them to overcome information deficiencies. Solving the problem of information deficiencies has been identified as one of the aims of the national Business Incubator Programme established by the MLSMED with the objectives of improving economic development in communities, and encouraging the establishment of competitive and inventive small and micro enterprises throughout the country. The National Integrated Business Incubation System (IBIS), an entity created under this programme, is mandated to partner with educational institutions to provide support services (NEDCO 2013). The provision of information

support services by UTT Libraries would serve to assist the University in its contribution to this governmental programme, in keeping with UTT's mission.

### **New Requirements for Library Staff**

It is foreseen that the shift to the entrepreneurial paradigm would require library staff to commit to the idea that UTT Libraries can assume a proactive role in support of the University's entrepreneurial mission. Efforts would be made to achieve commitment through the following:

- The holding of a series of consultations with library staff where the proposed initiatives would be presented by the Chief University Librarian. The aim of these consultations would be to keep staff updated, give them the opportunity to expand on the ideas presented, to propose other ideas, and to identify resources needed to actualize the strategic initiatives.
- The holding of similar consultations with faculty members and the Students Guild in order to communicate UTT Libraries' intent and to solicit their views on how the library can provide support for the entrepreneurial thrust.
- Integration of the ideas emanating from the above mentioned stakeholder consultations into UTT Libraries' strategic plan.

Library management has successfully utilized this consultative approach previously to achieve library staff's engagement in other initiatives. It is anticipated that this approach would meet with similar success, given the enthusiasm with which staff embraced previous opportunities to participate in new endeavours.

The adoption of this entrepreneurial paradigm would require library staff to have an increased knowledge and understanding of business studies and entrepreneurship. This could be achieved by the following means:

- Recruitment of librarians and paraprofessional staff with academic qualifications, subject expertise or working experience in industry, business, technology and environmental sciences. The field of Environmental Sciences is becoming an area of

increasing focus by UTT. Nationally, this area of study has the potential to spur the development of green industries and enterprises that are more committed to environmental preservation and environmentally friendly products and business operations. Staff with expertise in this subject background would be an asset.

- Support for librarians pursuing higher education programmes such as MBAs and the UTT's Master of Science in Industrial Innovation, Entrepreneurship and Management.
- Support for Library staff to audit entrepreneurial courses offered by the University.
- Attendance of librarians at business development and entrepreneurship seminars and conferences offered by educational, governmental and business agencies.
- Staff participation in internships at libraries in North America that provide entrepreneurial outreach services to universities, the business community and the public.
- Training of library staff in the utilization of business research resources.

Library staff would need to improve their networking skills to enable them to establish more effective relationships with faculty, students and the business community. To facilitate this, networking, the provision of marketing and communications skills training are warranted.

The expected outcomes of the retraining programme would be librarians who are flexible, innovative and entrepreneurial in outlook. Such librarians would be inclined to take risks and develop new services and methods for the delivery of existing services. The Chief University Librarian is prepared to support librarians as they embark on this new path and to provide the requisite staff training and resources to make this possible. Continuing education is an important component of the programme, as librarians must be willing to learn and quickly grasp new subject areas, by liaising with faculty and reading the literature on business and entrepreneurship, to educate themselves.

Proactive networking is another method which is highly recommended for librarians to use in becoming an integral part of the entrepreneurship drive at the University. They should seize the opportunity to become more proactive in their interactions with faculty, not only through the formal means they currently utilise such as attending meetings, but also by volunteering on committees, and participating in faculty and student events. Librarians would need to build stronger relationships with faculty and students by walking the “shop floor,” that is, by meeting individually with faculty members and Student Guild representatives to ascertain the projects and activities that they are involved in and the help they need, and by taking action to assist them, even if their needs are not directly library related. The following is an example of this type of approach.

At the ECIAF campus of UTT, the Campus Librarian partnered with faculty and the Student Guild to produce a *Visiting Speakers Programme* aimed at educating students about finance and leadership. Part one titled *Finance 101* introduced students to financial instruments in the business and non-business sectors, as well as the associated legal requirements and conditions that accompany these financial instruments. The visiting speakers who addressed students included senior executives of top businesses in Trinidad and Tobago such as Neal and Massy Food Distribution Unit, the Agricultural Development Bank and the Unit Trust Corporation, as well as a final year student of the Hugh Wooding Law School, University of the West Indies, St. Augustine. Part two titled *Ethics, Values and Leadership* was facilitated by the Chief Executive Officer of IBD Global Group, a business solutions organization, and Mr. David Muhammad, sociologist, motivational speaker, radio announcer and Tobago Representative of Minister Louis Farrakhan and The Nation of Islam. These sessions were well attended by faculty and students and positive feedback was received (Pryce 2013, 5-6). Innovative ventures such as these are likely to redound to UTT Libraries as positive social and political capital.

## Conclusion

Trinidad and Tobago has several tertiary level institutions including three universities- The University of the West Indies, St. Augustine campus, the University of Trinidad and Tobago, and the University of the Southern Caribbean. The University of Trinidad and Tobago is the only university in the country with a stated entrepreneurial mission. In the nine years of its existence UTT has forged ahead steadfastly pursuing its mission. The University's entrepreneurial thrust is evident in its programme offerings and supporting activities. A review of the literature on library support at business schools with entrepreneurial programmes and at entrepreneurial universities, suggests that opportunities exist for UTT Libraries to engage in strategic initiatives to support the entrepreneurial mission of the University. The new proposed mission for the UTT Libraries coupled with proposals for the provision of business-focused information resources, the restructuring of the Libraries' information literacy programmes, the development of revenue generating products and services and targeted community outreach services, would enable the Libraries to assist the University in its quest to achieve its mission. Moreover, the proposed initiatives have the potential not only to reduce library costs due to income realised from the revenue generating activities, but also to increase UTT Libraries' visibility and favour and ultimately position it as an integral stakeholder, in the fulfilment of the University's entrepreneurial mission.

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