

Multi-functional library design and sustainability: Designing multi-functional Learning Resource Centres in Vietnam

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Introduction

There has been a significant trend recently in the design of libraries towards the development of multi-functional facilities which offer clientele more than the typical range of information services and resources. It is now becoming common in modern library building development to find the library facility integrated or co-located with other cultural institutions such as art galleries, or in some cases with disparate functions such as shopping complexes and food outlets. (Harrington, 2001; Boone, 2002) In many instances this serves both to reinforce the library's role and position in the hub of the community it serves, and to encourage usage, and as a consequence is keenly supported by both library managers and the organizations which fund them.

It might be suggested, however, that in the majority of cases where library facilities have shared space or buildings with other activities in this manner, the primary objective has been explicitly social, cultural or educative, aiming to enhance the attractiveness, relevance and accessibility of the library service by co-locating or merging it with similar social and cultural activities, meeting places and spaces where communities come together. (Seet, 2005)

It is possible also that this approach to library design is fundamentally a product of thinking of libraries, librarians and architects in more developed nations, where the provision of library and information services is already at an advanced stage of sophistication, and issues of library funding and long-term sustainability are –

relatively speaking – less of an immediate concern than they are in developing nations.

The same is often not the case in some developing nations, where constraints of budget, technical infrastructure, management capacity and lack of resources have meant that the focus remains on the day to day business of providing and resourcing a basic library service. In cases where there are new library building developments, conceptualizing of the building and the functions it will house also does not ordinarily step outside traditional designs, based on existing modes of service delivery.

This paper will examine a series of library building projects in Vietnam where the concept of a multi-functional library complex has been applied to the design of the buildings, not just to enhance the role of each library as a cultural or learning centre for the institutions they serve, but more particularly to act as a means of providing sustainable income streams to support the ongoing provision and development of the library service. In these cases, and in the context in which the libraries have been designed and developed, economic necessity has been as great a driver as cultural or educative synergies in the design of the libraries.

Libraries and Library Design in Vietnam

Many Vietnamese academic libraries, especially those attached to provincial and regional universities, are confronted with major difficulties in supporting the learning needs of their academic staff and student communities. Chronically under-resourced, these libraries in many cases are also constrained in the services they can provide by the lack of substantial well organized collections and electronic resources, a shortage of qualified professional staff, and a traditional educational context which does not encourage individual student learning and exploration. (Nguyen et al, 1996; Tran, 1998)

Library buildings, as with many other university facilities in Vietnam, are often inadequate to satisfy the demand even for basic amenities such as study places, and a lack of sufficient funding to maintain facilities, combined with the impact of a humid tropical climate, can lead to the rapid deterioration of these buildings and the print collections that they house. (Henchy, 1998) In terms of layout and organization, Vietnamese academic libraries traditionally have been arranged as closed access collections - limiting or denying direct access to users - and organized according to a number of factors such as value, language, size, and intended user group. This has

tended to partition collections, and issues of access are complicated by the presence of a range of legacy classification and bibliographic management systems and card, book and electronic catalogues. (Lam, 1999)

There have been a great number of development projects which have attempted to support library services in Vietnam through initiatives such as donations of materials, grants directly to institutions for library management systems and electronic resources, or professional training and capacity building programs. While the situation of Vietnamese libraries has improved in many cases through these and Vietnamese government initiatives, the conditions described above have also instigated philanthropic projects which attempt to accelerate the development of existing library services through the establishment of completely new facilities, combined with extensive programs of IT infrastructure development, information resources acquisitions, professional training programs and library services development. This paper discusses a series of such projects, funded by an international philanthropic organization - The Atlantic Philanthropies (Atlantic Philanthropies, 2006a) – to develop library facilities styled as “Learning Resource Centres” on behalf of Vietnamese universities.

Learning Resource Centre Projects

The Learning Resource Centre projects were commenced in 2000, and involve the design, construction and development of large-scale library facilities in four regional Vietnamese universities in Hue, Danang, Cantho and Thai Nguyen. The projects bring together contemporary models and standards of library and information services with the provision of a sound information technology infrastructure, high quality teaching and learning facilities, and a range of current print and electronic information resources and services. The projects are supported by a broader national program which includes a range of professional development programs, establishment of bibliographic standards, and co-operative approaches to the provision of services and the acquisition of resources.

Through the construction and resourcing of the LRCs, the primary objective of Atlantic has been to support a shift away from traditional approaches to teaching and learning at a university level in Vietnam, creating the pre-conditions for change by opening up student access to information, and by supporting this access with high quality learning environments and the professional capacity to support independent student learning with appropriate information services. It is an ambitious development

program which aims not only to improve the level of resources and facilities available to students in the recipient Vietnamese universities, but to act as a catalyst for change by suggesting alternative models for library development and learning styles elsewhere in the country.

The projects have been undertaken and managed on behalf of Atlantic by an Australian university – RMIT – through its subsidiary RMIT International University Vietnam. Established in 2001, RMIT International University Vietnam is Vietnam’s first fully-foreign owned and operated university, and follows the University’s engagement in educational programs in Vietnam since 1992. (Wilmoth, 2004) The university has a license with the Government of Vietnam to develop educational facilities and to offer accredited academic programs and training courses, and has been active in developing its own campuses in Ho Chi Minh City and Hanoi. (RMIT Vietnam, 2006)

RMIT Vietnam has worked in partnership with an American based philanthropic organization – the East Meets West Foundation – in the design and construction of three of the four LRC buildings. The East Meets West Foundation was established in 1988 specifically to undertake philanthropic activities in Vietnam, and is the largest non-government organization currently operating in the country. The Foundation has a long-standing relationship with Atlantic - which has funded many of its other operations in Vietnam - and specializes in community based development assistance, such as the construction of schools, orphanages and clinics, as well as medical and dental programs.(East Meets West Foundation, 2006)

While the actual organizational model and the composition of the project team has varied for each LRC project, the projects have essentially been implemented through the leadership of RMIT Vietnam in overall project management and the specific development of library services, resources and IT infrastructure; and the East Meets West Foundation for building construction and fit-out. The design development process in each case has been shared, combining the expertise in pedagogy, educational facilities and library management which RMIT Vietnam contributes to the project, with the local practical experience of building and construction in Vietnam contributed by the East Meets West Foundation, and the needs, interests and aspirations of the Vietnamese client university in each case.

Learning Resource Centre Sites in Vietnam

Four Learning Resource Centre projects have been either completed or are currently under development in Vietnam. These are;

Hue University

Commenced in 2001, the Hue University Learning Resource Centre consists of a four storey building of approximately 7000 square metres, and includes a range of facilities such as a network of 500 PC workstations, group study and audiovisual facilities, a range of print and electronic resources, and a training, seminar and conference facility. Centrally located on a separate site in Hue City, the LRC serves the needs of staff and students from the University's six faculties and colleges located in the city. The formal hand-over of the LRC occurred at its opening ceremony on 23rd March 2004, with services to students commencing in June 2004. (Hue University, 2006)

University of Danang

The 5500 square metre Learning Resource Centre at Danang has been built at the College of Engineering campus approximately 10 kilometres west of the city centre. As the University has several colleges spread out across Danang City, the primary focus of this Learning Resource Centre is to serve the needs of the Engineering and nearby Education Colleges, and in addition the LRC is linked with the existing University of Danang Information Resource Centre in the centre of Danang City, to create an integrated information service for the whole University. The Learning Resource Centre was opened in July 2005 and contains a similar range of print and electronic resources, IT and study facilities, to the other LRCs. (University of Danang, 2006)

Cantho University

In the Mekong Delta area of Vietnam, the Cantho University LRC has been established at the main campus of the University, but will serve the staff and student communities from all three campuses in the city. Unlike the Hue and Danang projects, the Cantho LRC has absorbed the existing University library service and its collections. While incorporating similar services and facilities to the LRCs in Hue and Danang, a range of building design principles have been introduced at Cantho to

reduce energy consumption and minimize waste, and to lower the ongoing operating costs of the facility to a manageable level. The 7,200 square metre building opened in April 2006. (Cantho University, 2006) Of all four Learning Resource Centres, the Cantho LRC is the only facility to be designed, constructed and developed entirely through RMIT International University Vietnam. (Vietnam.net, 2006)

Thai Nguyen University

Work is currently underway for the development of an LRC at Thai Nguyen University, to serve University staff and students and the people of the northern mountainous area of Vietnam. Construction commenced in late 2005 and the LRC is expected to be completed and opened at the beginning of 2007. (Thai Nguyen University, 2006)

LRC Project Objectives

In funding these projects, the overall strategy of Atlantic has been to look beyond a typical “bricks and mortar” development of a library building to ensure that adequate attention and resources are also provided for - among many other things - information resource acquisitions, IT infrastructure and information professional capacity building, so that the LRC will continue to manage and deliver effective information services in the future. While each of the Learning Resource Centre projects has had its specific situational and design requirements, there have been a number of common objectives and project deliverables, including;

- The development of a “stand-alone” library facility which serves as a central resource and service for all of the University’s faculties, staff and students.
- The design and construction of a quality building which introduces contemporary standards of library design and amenity to Vietnamese universities.
- The introduction of techniques or features in the design to reduce the operating costs of the building and to promote the long-term sustainability of library services.
- The development of a robust IT infrastructure to support access to electronic resources such as full-text databases and internet services, and the development of web-based access to all library resources.
- The acquisition and organization of a range of print, electronic, audio-visual and other forms of information in both Vietnamese and English, and their management through a sound library management system.

- The development of an organizational framework for the management and service provision of the LRC, and the recruitment and training of management and staff.
- The development of information services which promote student resource-based learning and facilitate independent student access to all forms of information.

It was also a key part of this strategy that from the outset, issues of sustainability should be given serious consideration in the projects, and that if possible the design and functionality of the building should make a substantial contribution to this.

LRC Functionality and Design

For all of the Learning Resource Centre projects, an attempt has been made to develop a basic “blueprint” for the layout and overall development of the library service, and to then modify and adapt this blueprint to meet local conditions and requirements. This has assisted in reducing the costs of the projects, and has also enabled the projects to learn from each other as they develop, so that expertise and experience acquired in one project can be applied to the others in a much more systematic and efficient way. Fundamentally, this has given rise to the following key features common to all projects;

Layout

The floor layout of each of the LRCs has been designed in open plan to promote ease of navigation and to facilitate a student’s independence in accessing both resources and services. Services, facilities such as PC workstations and study spaces, and collections are all visible from the key traffic areas of the buildings, and unlike many traditional Vietnamese libraries are on open access and do not require the mediation of library staff to use.

PC Network

Each of the LRC projects includes a large scale student PC network which integrates access to electronic resources, such as full-text databases and e-books, with internet access, catalogue access to the LRC print collections, standard desktop applications and email facilities. This is supported by a robust network architecture and strong leased line and ADSL internet links to ensure that the difficulties of typical low-speed internet services in Vietnam can be overcome, and that it is feasible from both a

technical and a service point of view to deliver full text electronic information to the desktop. Electronic and online catalogue access is managed at the desktop through a web interface developed by the LRC project management team with each of the universities. The PC workstations have been deliberately located in the central areas of the LRCs to invite students to explore and use electronic resources as a complementary alternative to print, in a country where access to electronic resources is still very much in its infancy. As an additional design principle, the location of the workstations in the centre of the floor also reduces glare and offers LRC information professionals better opportunities to supervise and assist student PC usage.

Collections

Open access collections are not common in Vietnamese libraries, where traditionally access to materials has been tightly controlled, and the collections have been partitioned and enclosed according to their intended use (such as for external circulation, or in-house use). Consequently, the introduction of open access collections into the LRCs has been achieved using long sequences of shelving to make it simple for students to navigate classification sequences and locate materials unassisted.

Study Facilities

A range of group and individual study facilities are also made available in the Learning Resource Centres to offer students choices in the way in which they work. These include individual study carrels for private study, tables and discussion rooms for group work, and individual and group audiovisual spaces.

Teaching, Research and Commercial Spaces

A range of teaching spaces have been integrated into the design of the Learning Resource Centres, primarily to provide venues where library professionals can transfer their knowledge of resources and information seeking techniques to staff and students. In addition, however, these spaces have been designed into the buildings in order to offer the university high quality fully equipped conference and seminar facilities, which can be used both as a teaching venue and also as a means of generating external revenue to contribute towards the operating expenses of the LRC.

LRC Sustainability and Design

One of the key aspects of the Learning Resource Centre projects – and pivotal to their future development - has been the consideration given to the long term sustainability of the building and the library services it houses. As each of the LRCs is a large scale building, housing advanced IT networks and relatively sophisticated building systems, each bears a number of operating overheads which the recipient University must address if the Learning Resource Centre is to remain viable.

As a consequence, a number of initiatives have been undertaken with a view to promoting the long-term sustainability of the LRCs, both through the minimization of operating overheads and the optimizing of the revenue earning potential of the Centres. The most significant of these are;

- Building design and orientation which promotes the use of natural light while mitigating the effects of glare and heat build-up inside the building.
- Building finishes and surfaces which are durable, relatively maintenance free and are suited to the demands of a humid tropical climate.
- Emphasis on high initial capital expenditure on buildings, fit-out and infrastructure, to minimize the ongoing operating costs of continued development after the LRC is open.
- Building systems and design which minimize operating expenditure while still maintaining appropriate environmental conditions; and flexible systems which allow, for example, the lighting or air-conditioning of those parts of the building in current use.
- The integration into the building design of a variety of facilities, intended to optimize the use of the building in the present and to be flexible to allow for possible alternative uses in future.
- The provision in the LRC via capital or start-up funding of facilities which have the potential to generate revenue for the university.
- The development of strategic relationships with both non-profit and commercial enterprises to enhance the ability of the LRC to generate revenue.
- Diversification of the income stream through government, non-government and commercial sources of funding.

Multi-functional LRC Facilities

Across the four LRC projects there have been a number of different approaches

undertaken to accommodate other “non-library” functions into the LRC. These developments have been integrated into the design of the buildings from the very early stages of each project, and have taken into account the revenue generating potential of each type of facility, their viability in the context of the particular location and circumstances of each LRC and its parent university, the interests and aspirations of the university, and its capacity to manage and sustain these enterprises. While the Hue University LRC will be examined in detail below, for the other LRC projects discussed in this paper the following facilities have been introduced or are under development;

University of Danang LRC

On account of its location in the industrial western suburbs of Danang City, the University of Danang LRC focused its multi-functional activities on the development of conference and training facilities which could be used as a base for fee-for-service industry training undertaken by external organizations. In addition to this, the LRC includes a cafeteria and dining area which is integrated with a general study hall, to assist in the generation of revenue.

Cantho University LRC

Cantho University has aspirations to become the leading university in the southern delta area of Vietnam, and to move away from its traditional reputation as an “agricultural” university. In addition, it possesses a record of successful collaboration with foreign universities and other organizations. Consequently, it has used the LRC to establish a number of different facilities, which can be adapted to teaching, and research as well as commercial purposes. These include;

- The venue for a proposed “Mekong Development Centre” to house research and development projects in the region.
- A university campus bookshop operated by a leading Vietnamese bookseller on premises rented from the LRC.
- Conference and seminar facilities, including a 250 seat auditorium, IT equipped seminar and training rooms (including operable walls to make large and small spaces available) and a fully equipped conference room.
- Teaching and administrative space for a university program in librarianship and information sciences, to be delivered substantively by the senior librarians of the LRC.

- A gallery and exhibition space to accommodate displays and special events and functions of interest in the university, Cantho City or the Mekong Delta area.
- A cafeteria area at the entrance to the LRC.

Thai Nguyen University LRC

As the last of the four LRC projects, the Thai Nguyen LRC adopted aspects of the design and functionality of the previous three Learning Resource Centres, while nonetheless creating facilities which had the most revenue generating potential within the context of the university's role and location. These facilities include;

- A large 300 seat auditorium (which can be divided into smaller spaces) to host regional and local conferences and meetings.
- A cafeteria and dining area adjacent to auditorium which not only serves the daily needs of the staff and students of the university but also acts as a catering outlet during special events.
- Accommodation for a proposed research facility which will be focused on the needs and development of the ethnic minorities in the northern mountainous area of Vietnam, which the university has a mandate to serve.
- IT equipped seminar and training facilities which can be used both by the university as well as by local and regional external organizations.
- An exhibition space and bookshop.

Hue University LRC and Multi-Functional Design

Of the four LRC projects, it has been the Hue Learning Resource Centre - the first of the projects to be initiated by Atlantic - which has so far seen the greatest development and integration of alternate functions within the building complex.

From the outset of the Hue project, the concept design process was a complex iterative activity, as it tried to reconcile RMIT strategies to achieve pedagogical change through the design and functionality of the LRC with both the technical limitations of building design and construction in Vietnam, and also with the traditional teaching and learning practices and methodologies of the Vietnamese university system.

In addition to introducing contemporary models of library design, the design process also engaged Hue University in thinking about the mode of teaching and learning

which it offered students, and of being receptive to changes in typical Vietnamese library services layout to achieve more independent self-directed forms of learning.

One of the main outcomes of this process was that the Learning Resource Centre from its inception was never considered to be a “typical” library – either in Vietnamese or western terms – and that this would be evident in its function, layout and the types of activity it accommodated. In addition to housing facilities which would encourage independent access to all forms of information, this also left the way open for the a range of facilities to be included which would allow the LRC to be used as a centre for “teaching” as well as for “learning”, and which would assist in addressing the critical issue of ongoing sustainability by providing sources of income to contribute to the maintenance of the building and to the library services and resources. It was also envisaged very early in the project that capital funding could be invested in developing disparate facilities in the LRC which had the potential to generate significant revenues, regardless of their degree of alignment with the core functions of the LRC or with the overall teaching and learning strategies of the university. This has emerged in the Hue LRC in several different facilities; (Hue University, 2006)

Example 1 - Commercial Activities

Space has been allocated to five “non-core” additional functions at the ground level of the Learning Resource Centre. These are;

- A cafeteria/restaurant at the front of the building, clearly visible from the adjoining boulevard. The Learning Resource Centre itself is centrally located in Hue City, on one its major boulevards alongside the Perfume River. Although this location was chosen by the university as being central to the six colleges spread throughout the city, it has the added advantage of being in a prime location for the city as a whole. It was anticipated that given the central location of the LRC, a cafeteria facility would prove attractive not only to tourists but to members of the university community and the general public of Hue.
- An internet café and IT training facility, also positioned in a clearly visible location at the street frontage of the building. While access to the internet inside the LRC is free for staff and students of the university, it was anticipated that the establishment of this i-café/training facility, which takes advantage of the state of the art high network and broadband internet connections installed for the LRC, would appeal both to the large transient tourist population of Hue but more particularly to the vast majority of internet savvy youth of Hue who do not

possess PCs and internet connectivity of their own, and rely on the city’s patchy internet services for access. It also created a venue which could be used as the basis for commercially operated IT and internet courses.

- A gallery and exhibition space adjacent to the entrance of the LRC, which offers opportunities not only to capitalize on the range of cultural initiatives encouraged in the city through its World Heritage status, but also provides a potential venue for commercial galleries which thrive in the city.
- While photocopying and printing facilities were provided primarily for the needs of staff and students of the university, it became apparent early in the project that a market existed in Hue City for high quality printing and photocopying services. Consequently, the main photocopying facilities, which can handle bulk runs from both print and digital originals was located on the ground floor for easy access to the public as well as to the university community.
- The LRC is surrounded by a substantial paved compound, and while not anticipated as a “feature” of the design, this area has subsequently been allotted as parking space for the ubiquitous motorcycles of Hue City.

Figure 1 below illustrates the extent to which space was set aside in the Learning Resource Centre for the cafeteria, internet café and photocopying and exhibition areas.

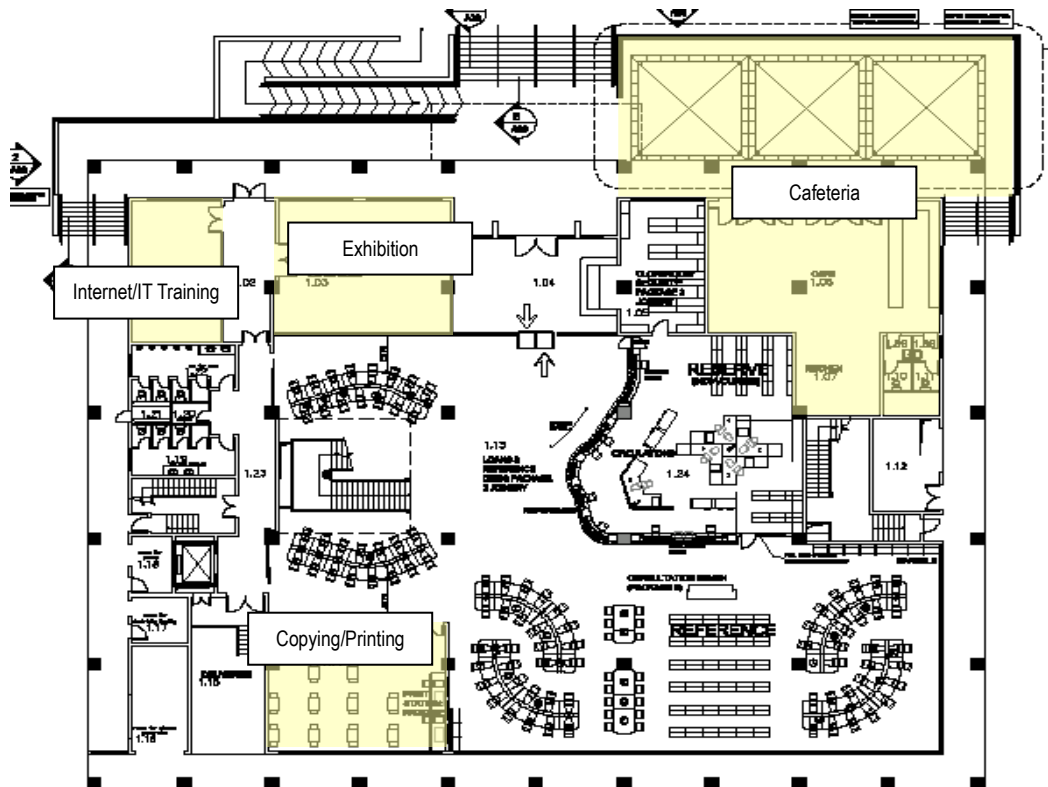


Figure 1 – Hue University Learning Resource Centre, Ground Floor

Example 2 - The LRC Conference Centre

In addition to the ground level facilities incorporated as commercial outlets into the Learning Resource Centre building, there are other functions built into the LRC which are more synergistic with its main purpose as a learning and information centre. The entire top floor of the LRC – in addition to accommodating the main staff work areas – contains a conference and seminar complex which includes large seminar rooms, PC training laboratories, classrooms and a conference room.

This seminar and training complex is indicative of how there were three “layers” of functionality consciously developed in the Learning Resource Centre. At its most fundamental, it was intended that the classroom and PC based training laboratories should be included in the overall design of the LRC to provide venues for professional library staff to conduct classes in library orientation and information literacy for the staff and students of the university. At a second level of functionality, it was anticipated that the seminar facilities could also act as a venue for teaching activities of the university, as with its degree of sophistication in terms of networked PCs and presentation facilities it was in general addressing a need not otherwise filled by the university.

Thirdly, the conference and seminar facilities were also designed with the intention that they could host conferences and other events by organizations external to the university on a fee for service basis, and thus generate revenue for the Learning Resource Centre. This was identified as viable given the central location of Hue in Vietnam, its attractiveness as a conference venue (as the former imperial capital and a UNESCO World Heritage Site), and the absence of facilities to the same standard elsewhere in the city or in the central region. To this end the venues were equipped with videoconferencing facilities as well, to promote the use of the LRC as a node in networks for distance education programs and meetings both within Vietnam and overseas.

Figure 2 illustrates the extent to which the upper level of the LRC was dedicated to the provision of the conference and seminar venues. The north frontage (top) of the area containing the centrally located conference room and seminar rooms gives out on to a deck and balcony area, which overlooks the Perfume River and the former imperial Hue citadel. In addition to the meeting areas, PC facilities and classrooms, the area also includes a reception area and gathering space, as well as a kitchen so that events can be catered and the LRC is able to offer this service as part of the package

of amenities to other organizations.

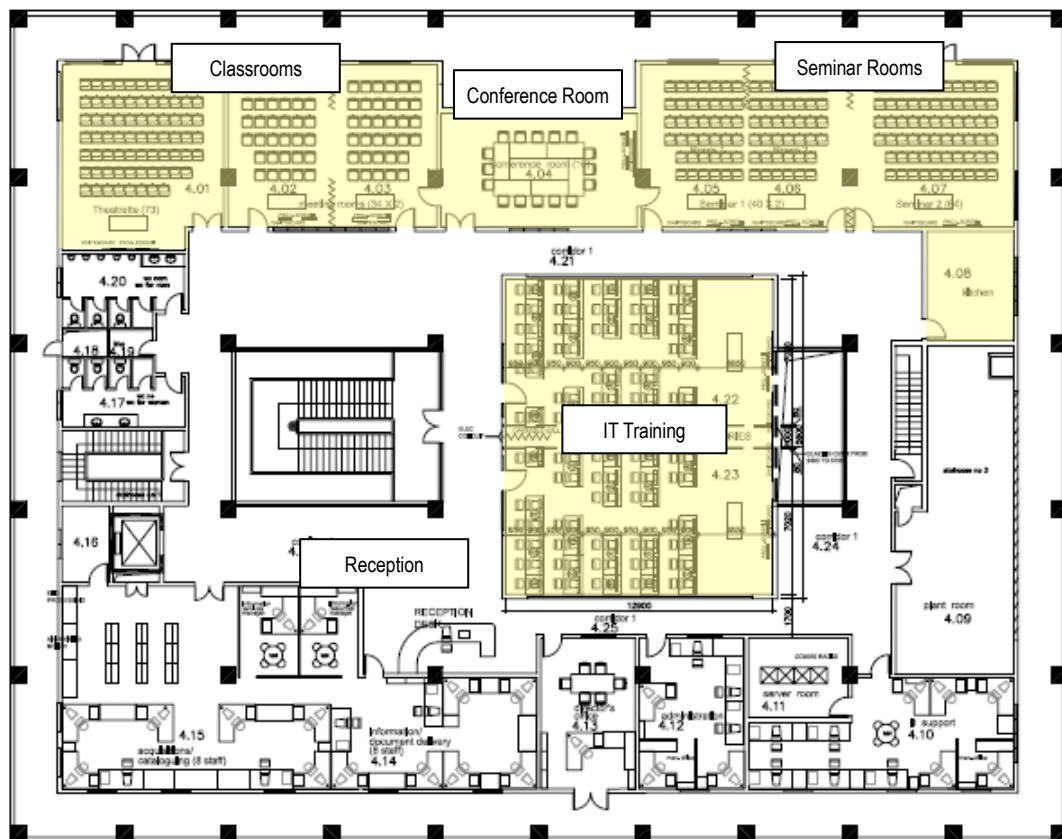


Figure 2 – Hue Learning Resource Centre, Third Floor Conference Area

A number of the rooms in the conference area have been equipped with operable walls to further enhance the flexibility in use of the venue. For example, the larger seminar room, which is capable of housing in excess of 100 people, can be divided into two smaller venues. It should be noted also that access into the third floor conference venues of the building has been designed specifically so that this area could function as an overall part of the Learning Resource Centre or as an independently functioning conference facility. Access is ordinarily provided via the stairs leading up from the lower levels housing the collection and study areas of the LRC. In addition to this however, corridors leading off from the ground floor of the LRC give separate and self-contained access from the street frontage of the LRC via a lift to the third floor conference area. This allows the conference area to operate independently from the Learning Resource Centre, and to be open and occupied even when the LRC itself is closed, enhancing its appeal, flexibility of use and commercial viability.

Example 3 - The LRC International Centre

In the course of designing and constructing the Learning Resource Centre, it also emerged that synergies were possible if the International Relations Office of Hue University were also located within the Learning Resource Centre. International Relations is a key function in the typical organization of a Vietnamese university, as it is responsible for the management of foreign visitors and delegations, the hosting of international workshops and conferences, and the development of relationships with overseas universities and organizations for teaching and research funding and co-operative research. This role is critical if the university is to be successful in attracting foreign aid in the form of funding, facilities and equipment, or professional and technical expertise to assist it in the development of its programs and facilities.

The inclusion of the International Relations Office was a conscious and astute decision by the university to exploit the potential of the LRC. The LRC is a flagship building for the university, separate from any of the six colleges it comprises, but nonetheless centrally located in the layout of the university around Hue City. In its design, quality of building finish and the range of resources and amenities it offers, the LRC is more advanced and more sophisticated than any other building controlled by the university. Consequently it is an ideal venue to host visits from overseas delegations, from universities, aid organizations and so on, as through its resources and facilities it reflects Hue University's commitment and ability to support collaborative programs, and highlights how the University can manage and capitalize on foreign development assistance. As the International Relations Office is now a part of the LRC, foreign delegations must visit the LRC as a matter of course, and are thus exposed to the level of library service now available to Hue staff and students, as well as the range of resources and facilities which are available to support teaching and research.

The Benefits of Multi-Functional LRC Design for Hue University

Since its opening in June 2004, the Hue University Learning Resource Centre has continued to attract the interest and engagement of its academic staff and student communities. Throughout 2005, the Centre averaged a traffic count of over 1500 users per day, and generated average monthly circulations of all categories of material of over 8000 loans. It has been the focus of a considerable amount of attention within Vietnam, both for its design and for its pedagogical implications, and has been the subject of a visit from the Deputy Prime Minister amongst other dignitaries.

While the Learning Resource Centre continues to develop and successfully engage with the University community in its information provision and learning support roles, it is equally crucial to its future success that the University can afford to maintain and build upon the existing level of operations, resources and services. Without ongoing financial support and commitment, the risk remains that the Learning Resource Centre will be forced to contract or withdraw services and facilities from use, as a means of reducing its operating overheads to a level that falls within available funding.

As indicated earlier, one of the aims of the project has been to minimize this risk wherever possible, principally through building design principles which ameliorate the cost of basic functions such as power, lighting and mechanical systems, reduce the cost of building maintenance, and through diversifying the functionality of the building in order to create opportunities for income generation.

In the case of the Hue Learning Resource Centre, several income streams have now been established which contribute a substantial cash-flow into the operation of the building. These include;

- Lease income from the Hue Tourism School for the “Ngoc Lan” cafeteria.
- Income generated from fees for parking in the LRC compound.
- Rental income from the use of conference and seminar facilities and equipment by external organizations.
- Internet café income and income from the use of this space for the conduct of courses under the Cisco Networking Academy.
- Income for rental of premises from IT classes conducted by the University.
- Printing and photocopying activities.

Altogether, it is calculated that these commercial activities at present inject over USD \$50,000 per annum into the Learning Resource Centre. While this may appear modest by the standards of western libraries, in Vietnamese terms - for the scale and cost of the service provided - this is a substantial contribution to the overall expense of operating the Centre. It has been estimated that this income alone accounts for almost 60% of the basic building operation and maintenance costs, including power and lighting, other utilities such as water, and most importantly internet connectivity and telephony.

Other major service and operating costs, such as labour, the continued acquisition of information resources, and the upgrade and replacement of equipment and IT are still

necessarily the responsibility of Hue University through the funding it receives from the Vietnamese Government Ministry of Education and Training. However, these costs are also addressed to some extent by the diverse strategies of the University involving the Learning Resource Centre and the facilities it offers. For example, through the International Centre located in the LRC, a range of collaborative teaching, research and study programs have been developed, improving the depth of international support for the University overall. In addition, relationships have been established with organizations which support the ongoing donation of information resources and IT equipment, and the availability of high quality IT facilities in the LRC has enabled it to participate as a training partner in the CISCO Networking Academy. (Hue LRC International Centre, 2006)

Conclusion

Ongoing sustainability for the Learning Resource Centres in Vietnam necessarily continues to require the engagement of a diversity of funding sources and means of support, including not only self-generated income but also University and government funding, in-kind philanthropic assistance, and the establishment of a range of strategic partnerships to develop long-term programs.

The Hue University LRC - along with the other LRC facilities - is the ongoing beneficiary of other programs supported by The Atlantic Philanthropies in its broader strategy of capacity building in the Higher Education sector in Vietnam. In developing its long-term strategy for the Learning Resource Centres, Atlantic understood that the issue of sustainability not only concerns operational and financial viability, but also the ability for each LRC to possess the management and technical capacity to continue to develop and deliver quality library services into the future. Consequently, since the commencement of the LRC projects, a broader sustainability strategy has emerged within Atlantic which supports the LRCs and other Vietnamese libraries in capacity building and sustainability planning in the following areas; (Atlantic Philanthropies, 2006b)

- A range of professional training and management development programs for Vietnamese librarians involving institutions such as RMIT Vietnam, Simmons College (Boston, USA), the Victoria University of Wellington (New Zealand), the University of Queensland (Australia) and the Mortenson Centre, University of Illinois (USA)
- The development of business models and strategies for continued growth under

the guidance of the College of Business Administration at the University of Hawai'i at Manoa.

- The establishment, translation and implementation in Vietnam of national bibliographic standards such as DDC, MARC21 and AACR2 through RMIT Vietnam, the National Library of Vietnam and the Vietnamese government National Centre for Scientific and Technical Information.
- Engagement with other philanthropic programs and NGOs for the donation of books (for example, through the Sabre Foundation) and for low-cost access to electronic databases (through the International Network for the Availability of Scientific Publications).

As a consequence, a range of strategies are being brought to bear to complement and expand on the initial focus in the LRC projects on building designs which promote long-term sustainability through minimizing operating overheads and diversifying opportunities for income generation.

Rather than detracting from the design or operation of the LRC building, through the example of Hue and the other Learning Resource Centre projects, it can be demonstrated that the introduction of flexible and multi-functional facilities into the concept design of the buildings from the initial stages of the projects can both add value to the information services delivered, and also provide a substantial financial benefit. A number of the facilities discussed, for example, both directly complement the LRC information services and resources as well as contributing revenue.

In some respects this was possible in the Vietnamese context, where a shortage of suitable teaching and library venues in the universities has meant that some degree of dual functionality and flexibility of purpose is typical of many buildings, in order to optimize the use of the available space.

However, there are parallels between this and many library services in Asia and in the developing world in general, and to this end the LRC projects may suggest a model for multi-functional library development which can be applied in many other contexts and situations.

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