MEDICAL LIBRARY REDESIGN AND REFURBISHMENT: A CASE STUDY FROM PAH LIBRARY AND KNOWLEDGE CENTRE PRIOR AND DURING THE COVID-19 PANDEMIC

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Introduction

Redesigning a library requires effective communication and compromise because many operational, technological and aesthetic variables need to be considered, and the priorities and knowledge of stakeholders differs. Reflecting upon the process of refurbishing an Australian medical library, located within a large Queensland tertiary teaching hospital, there are many variables to consider. Stakeholder engagement, governance, collection development, ICT and spatial considerations are all important aspects of library redevelopment. Common pitfalls of library redevelopment may be avoided through diligent planning and consistent leadership. Focusing on achieving short-term tasks and maintaining service normality is useful, particularly when a pandemic creates an increasingly hostile global operating environment.

Stakeholder Engagement and Project Governance

Redesign of the PAH Library & Knowledge Centre began with identification of stakeholders, identification and measurement of stakeholder needs and preferences, and some consideration of budgetary allocation. The Guidelines for Australian Health Libraries (Health Libraries Australia, 2008) recommend, "a strategic analysis to identify and analyse its internal strengths and weaknesses against user requirements and external trends and developments." Assessing strengths, understanding the needs of users and building a skilled project team are all important for a successful project (Bassett, 2010). Similarly, Brackenridge Hospital in Austin began the development of a new library service by performing a client needs assessment and identifying activity and collection requirements (Mercer, 2008).

The Metro South Health Study, Education and Research Trust Account (SERTA) committee assessed an application for PAH Library & Knowledge Centre facilities to be upgraded. The SERTA committee approved funding for a library refurbishment project, to be managed through normal project management processes for Princess Alexandra Hospital projects. A project steering committee was formed, consisting of representatives from key hospital services, in order to facilitate decision making processes. Representatives attended from nursing, medical, allied health and administrative areas of the hospital. The SERTA committee was engaged strategically for some decision making processes. A working committee was formed with library staff and project management staff, to facilitate more detailed levels of planning and decision making. The final approval processes received governance from the Executive Director of Medical Services, Princess Alexandra Hospital.

During conceptual considerations, library staff and the project steering committee developed a client survey to engage the broader hospital client base. The survey questions asked library clients about the activities they would like to undertake in the library and their preferences for seating arrangements, facilities, equipment and information resources. Library staff promoted and administered the survey to library clients, analysed the survey results, and reported back to the steering committee. The results of the survey provided insight into client activities and preferences. Pubmed, Medline complete, CINAHL & CKN were some popular resources clients listed that they currently use. Some clients appeared to lack knowledge about information resources already available, and the costs or regulations of licencing electronic resources. Clients most preferred to use the library for working at a PC or laptop, borrowing publications, requesting publications and articles, and working on their laptops. A senior project steering committee spokesperson reported on the results of the client engagement survey to the SERTA committee.

Common stakeholder engagement and project governance pitfalls to avoid:

- Project governance should be initially well defined and transparent, ensuring staff to understand their roles and responsibilities.
- Committees formed need clear terms of reference, enabling participants to understand the scope and responsibilities of their participation.
- Committee participation should be contingent on having adequate time and a project background knowledge to enable full, ongoing and meaningful participation.

ICT Considerations

Refurbishment is an ideal opportunity to upgrade library ICT infrastructure, hardware and software. ICT decisions are informed through stakeholder engagement, to achieve the best value and impact. The use of wireless mobile devices and technologies to access scholarly medical information continues to increase

(Chamberlain, Elcock, & Puligari, 2015). The Guidelines for Australian Health Libraries (Health Libraries Australia, 2008) recommends, "The LIS maximises the use of available networks and telecommunications to enhance service delivery".

A working party of library, ICT and project staff was tasked with investigating conceptual ICT library innovations for the PAH Library & Knowledge Centre redesign. Some concept ideas presented, based on public and academic libraries, were outside of scope, outside of budget or impractical to implement e.g. flying-drones delivering books to locations in the hospital. The working party considered client feedback, captured through the client survey administered to the broader hospital client base. Based on client feedback and suggestions from the project steering committee, a list of ICT recommendations of interest was developed. The list included dual-screens on PC work stations, large display screens, additional hardware and phone charging stations. Aligning with best-practice hospital safety strategies, security cameras were identified as integral and essential to the 24/7 library environment.

Upgrade of the PAH Library & Knowledge Centre EM Tag (tattle-tape) stock control system to an RFID system was included in the initial application for the upgrade of PAH Library & Knowledge Centre. An RFID system was documented in the application as an essential component, and was allocated to the project's working committee to assess, cost and implement. Essential basic components of an RFID system conversion were identified by the working party including: rewritable RFID tags, RFID security gates, RFID desktop reader/writer, software licencing, conversion project management, bulk-tagging equipment, and training costs (Simon, 2008). Additional RFID equipment options such as RFID-enabled returns chute, RFID-enabled returns-shelf and RFID-enabled hand-scanners were not essential to the scope of the project. An RFID shelf-check unit was within the scope of the system upgrade. Quotes for an RFID system were sought, costed and evaluated by the working committee and a vendor selected. RFID tagging of the collection was completed while the collection was in off-site storage as pre-arranged by the project time-line.

Common ICT pitfalls to avoid:

- It's useful to clearly define what is an ICT component. e.g. are USB electrical sockets or network switch-boards included?
- It's helpful to isolate a portion of budget initially for ICT components, to define the scope of consideration.
- Having the most appropriate ICT staff comment on aspects of ICT, increases the speed of planning. e.g. networking and desktop software ICT teams may be separate groups.
- Non-essential equipment and features should be given initial consideration and weighting by individuals in key governance positions, to

avoid spending time on broader examination of items that will not achieve acceptance.

Spatial Concepts & Architectural Planning Considerations

A conceptual design period allows time for stakeholder feedback and committee ideas to be collected and collated. Library planning is aligned with institutional priorities, supporting educational needs from all areas (Dexter et al., 2019). James Shedlock of Galter Health Sciences Library commented of the spatial design process, "Architects tend to want to make a statement. Librarians generally want a building that works and one that they can live with for themselves and for the users" (Ludwig, Shedlock, Watson, Dahlen, & Jenkins, 2001). Architectural planning may or may not be engaged initially, depending on internal or external project management models (Bassett, 2010). Developing a layout has many components that require consideration such as: types of spaces, types of furnishings, safety and security, ICT integration, ongoing maintenance and standards compliance (Sannwald, 2016).

In initial conceptual phases of the PAH Library & Knowledge Centre redesign, the working committee located and considered visual materials such as vendor product brochures and 'LookBooks'. Through the client survey, hospital staff expressed preferences for facilities including: PCs, shelves with books, print/copy/scan MFD, water-fountain, self-checkout and sound-minimising partitions. Some clients also expressed interest in phone charging stations, new publications displays, and out-of-hours book returns. Most clients expressed a preference for individual table and chair seating, individual study areas and group meeting rooms.

An architectural drafter was engaged to present some conceptual planning to the project steering committee. Some initial concept ideas were based on examples from public and academic libraries or architectural concepts, for example extending the library foot-print into an atrium. Several versions of architectural designs were considered by the steering committee, and by the working committee, and versions were created from feedback. The membership of the steering committee changed frequently, which made the process more difficult, because new attendees needed to be briefed on aspects of the project to that point.

Library staff highlighted the visual-merchandising aspects of the library space and the operational spatial areas of the library. Library staff highlighted some library standards and guidelines such as the 'Guidelines for Australian health libraries' (Health Libraries Australia, 2008), 'Aboriginal and Torres Strait Islander protocols for libraries, archives and information services' (Aboriginal and Torres Strait Islander Library, 2012) and 'ISO/TR 11219:2012(en) Information and documentation - Qualitative conditions and basic statistics for library buildings — Space, function and design' (Standardization, 2012). A working committee visited The Prince Charles

Hospital Library, a medical library of similar size and scope, which helped to provide a better concept of the operational aspects of health libraries for those unfamiliar with operational library considerations.

A conceptual design was selected and approved by the SERTA committee. An architectural contractor was engaged to consider conceptual plans to this point and to create detailed plans, including full structural aspects, furnishings, materials and detailed costings. A meeting with the architectural contractor and the working committee was consultative, and some additional conceptual features were proposed including: sound-diffusion materials, colour-scapes for carpet and furnishings.

Common conceptual and architectural consideration pitfalls to avoid:

- The services of an interior designer or visual merchandiser are appropriate at a conceptual stage, as these aspects will be of great interest to stakeholders throughout the project, and may inform architectural decisions.
- Essential features should be identified, itemised, and communicated transparently to stakeholders, to indicate areas of budget or costs that may need to be quarantined e.g. budget for painting and carpeting.
- Stakeholders may not know the approximate costs or viability of design features, so making estimates transparent early in the process can focus and rationalise stakeholder expectations.
- Non-essential design features and suggestions can be given initial consideration and weighting by individuals in key governance positions, to avoid spending time on broader examination and itemisation that will not achieve sign-off at later stages.
- Communicating broader ICT considerations to architects is important, because some aspects may influence the spatial layout e.g. widths and wiring for library gates.

Collection Considerations

Refurbishment processes may include the assessment, storage and relocation of library collections. Some new medical school libraries are ‘born digital’, meaning that their collections are entirely digital (Dexter et al., 2019). Most medical libraries present ‘blended learning libraries’ of digital and print collections in varying ratios, dependent upon client preferences, budgetary availability, and copyright/licencing considerations (Health Libraries Australia, 2008). Changes to shelving configurations and shelving linear centimetres (LCM) affects the storage and management of collections (Health Libraries Australia, 2008).

Initially a conceptual idea from primary governance was withdrawal of the print collection and sourcing of an entirely digital collection, however with further consideration it was resolved that a 'blended learning library' of digital and print collections was better suited for the scope and objectives of the project. The project consultation survey indicated borrowing publications and 'books with shelves' remained a priority for clients. Some print materials needed to be retained due to archival and copyright requirements and some required publications were not yet available for multiuser eBook purchase. A large proportion of publications had already been made available to clients digitally and did not need to be included in the scope of the redesign project.

The library undertook deselection (weeding) for advised shelving LCM reduction of print collections, to accommodate the architectural designs with reduced shelving foot-print. A collection management policy was written, reviewed and validated to guide deselection, because a current policy was not in effect. Deselection lists were generated from the libraries LMS, based on year of publication and usage formulas and these lists were reviewed as per the new collection management policy. Deselection, deaccessioning and disposal commenced, until the collection was reduced to match LCM specifications communicated to library staff. Changes to shelving LCM to accommodate accessibility was altered at a later stage of architectural design.

Initially the possibility of library staff packing, storing and relocating the library print collection was discussed. Library staff identified the task as too large in magnitude and scope and advised that a professional library mover would need to be engaged. Quotes were sought from professional library movers, responses evaluated and a company engaged for packing, storage and relocation. Tagging of collections with RFID tags was scheduled in project timelines to be completed while the collection was in storage.

Common collection pitfalls to avoid:

- Staff unfamiliar with library collections may not initially be familiar with the processes, costs or considerations of moving/storing print collections.
- Deselection without a current collection management policy is highly inadvisable.
- Changes to shelving LCM after deselection or storage, is not advisable.
- Accessioning/tagging of collections is ideally performed under standard collection conditions.

Relocation, Construction, and Launch

Relocating library collections is a process with many complex factors. When limited staffing and equipment is available engaging and briefing professional movers is a

useful option (Fortriede, 2010). Launching a new or refurbished library ordinarily incorporates social events such as networking-events, library tours, dedication ceremonies and team events (Bassett, 2010; Sannwald, 2016).

In January of 2020 the PAH Library space closed and construction and refurbishment proceeded. The Library PC lab was moved into temporary space for ongoing client access. The Library collection was packed and moved to off-site storage by professional movers. Library staff were relocated into a temporary office for the duration of the construction period. During the construction period RFID tagging of the entire library print collection was completed. In anticipation of an opening launch, the library steering committee selected a name for the library, in conjunction with approval from the organisational communications area.

On the 29 January 2020, the Minister for Health and Minister for Ambulance Services declared the international COVID19 outbreak a public health emergency for Queensland and on the 11th March 2020, the Director-General of the World Health Organisation declared COVID19 a global pandemic ("Public Health and Other Legislation (Public Health Emergency) Amendment Bill 2020 — Explanatory Note," 2020). By 20th March 2020, the Australian international boarders were closed. (Scott, 2020). During this period of initial uncertainty many clinical spaces and staff roles were being assessed across Queensland Health, in relation to predictions and models of how the year may progress. Travel and border restrictions were enacted and COVID-19 was effectively controlled in Queensland.

PAH Library & Knowledge Centre space officially opened to clients in June 2020 with a 'soft-launch' and social distancing restrictions. Library staff returned to the library space during April however, due to social distancing impacts on other hospital spaces, some of space was temporarily seconded to accommodate overflow of a seasonal staff influenza vaccination service and a staff counselling service project. As the COVID-19 infection rates improved in Queensland and restrictions on space usage gradually eased, PAH Library & Knowledge Centre was able to resume normal functional capacity. The new 24/7 library featured more meeting rooms, new furnishings, better interior design, more ICT equipment, and indoor Zanzibar plants. General feedback from hospital staff was very positive, and usage of the library steadily increased.

Common relocation and launch pitfalls to avoid:

- It's useful to have a client communications plan for relocation, construction and launch periods.
- It's ideal to install hardy species of indoor plants that require very limited light and water.

- Focusing on achieving short-term tasks and maintaining service normality is useful, when a pandemic creates an increasingly hostile global environment.

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