Setting up a New Library: Planning, Challenges, and Lessons Learned. A Case Study about Qatar National Library

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ABSTRACT
Prior to the opening of the Qatar National Library (QNL) in November 2017, the library went through an extensive planning and development process. This included constructing the building itself, which would house the collections, staff, and public spaces; testing the IT infrastructure; team building; processing newly acquired materials; and moving all the equipment, large and small, to the new building. This article focuses on the planning process for moving the library’s collections and covers the various steps taken to ensure success on opening day. It also describes the challenges faced during the planning process and after the move to the new building. While libraries do not move often, this article was written in the hopes of helping those who find themselves in this unique situation.

KEYWORDS
Qatar National Library; Library buildings; moving; Library holdings; Children’s Collection; General Collection; Heritage Library; book sorter; RFID technology

Introduction
The emergence of information technology over the past 20 years has resulted in an unprecedented transformation of academic and public libraries. Libraries have begun to offer digital services and access to technology while continuing to provide traditional book and article lending. This only reinforced the perception of Libraries and role that it plays in societies and made the Libraries survive that age by focusing on new ways to outreach and be more relevant and engaging to their communities, and meet the evolving needs of their twenty first century users.

The last 10 years saw a new movement in Library architecture, where in spite of the advancement of the digital age, new Library buildings emerged with an expanded role to play in developing communities, in a world that embraces both print and the digital. (McDonald, 2019) Among the newest Libraries that emerged lately: The Helsinki Central Library Oodi which opened its doors in December 2018, Calgary New Central Library (November 2019), The Tianjin Binhai Library (October 2017), The New Central Library in Austin Texas (October 2019), The Deichman Bjorvik in Oslo (Spring 2020), The Museum of Literature in Dublin, Ireland and the Qatar National Library (November 2017) (Krueger, 2019).

With the new Library buildings, emerged the third space concept that can help libraries and librarians develop ways of working with increasingly diverse populations in increasingly dynamic context (Elmberg, 2011). The third space, considered as a safe place, enhanced the libraries missions and role to adapt to the needs of their communities, by transforming the spaces that evolved from the traditional container of books to new inspired spaces for children, young adults, where members felt comfortable initiating hard conversations of social issues-based dialogue and action (Josh, 2018). Library space became a place where people meet, socialize, and interact. The new library design became a reflection of what a nation is what values it represents, the openness, the democracy, and the liberty of expression. Libraries played new roles as social, cultural place where communities gather, seek knowledge, and grow.

The Twenty-First Century libraries spaces were adjusted to the digital age, with digital platforms like Media Walls, Library systems, technology, knowledge and empowerment. Technology in Libraries invite users to interact (Ostergard,
and offer inspiration through materials, programming, visual arts, and maker activities. Serendipitous encounters between people who might not meet otherwise can trigger thinking and connections (Lesneki, 2019).

In the State of Qatar Libraries and education have not been undermined, as the State of Qatar is placing strong emphasis on education in line with the Qatar National Vision of 2030. By building the Qatar National Library (QNL), the State of Qatar has accomplished an eagerly awaited project—one that is bringing people together and fostering equal access to information.

While the idea emerged in 1995 to build a central library serving the Qatar Foundation community and its universities, the project was changed in April 2012 and was renamed the “Qatar National Library.” Its mission was articulated into three functions: national library, public library, and research library. The “Dar-Al-Kutub”, the former national library, passed its mission to the QNL. Since then, the initial architectural plans were adapted to fit these new purposes.

This article highlights the Qatar National Library and emphasizes the move of the collections to the newly constructed library, describing the Library building, the planning process and challenges that were faced prior to and after the move, as well as the lessons learned throughout the process.

The Qatar National Library building provides access to physical and digital collections, the Heritage Library, and event, learning, and innovation spaces, making it the model library for the 21st century.

**The Library building: Description and overview**

The 45,000 m² building, designed by Rem Koolhaas, accommodates the physical collections and e-resources, along with a substantial amount of services, spaces for learning, seating, and common areas. QNL is the newest library building in the Middle East in this digital era. In Figure 1, it can be seen how the building, from the outside, was conceived as two plates that are pulled apart and folded diagonally at the corners to create a shell-like container, which encloses the open-plan interior. The QNL building is a monument to the enduring value of the book in its unique architecture’s resemblance to a book. Figure 2 shows the open-plan interior.

Three tiers rise from the plaza, connected by a floating bridge. The elevation of the books can be interpreted as symbolizing the elevation of values and knowledge. It feels like the inside of a Roman theater. The white cement ceiling reaches

![Figure 1. The Library Building (Courtesy of Qatar National Library).](image-url)
21.22 meters tall, and reflective coats of paint add space and reflection while the corrugated glass allows the light in “as a representation of knowledge” and to maintain a connection to the outside world. It is a place that invites its visitors to learn, discover, and express themselves. It is, in effect, a physical statement of democracy.

The library is designed to accommodate 1,200,000 books distributed among the tiers and compact shelves. While the tiers currently accommodate 400,000 books, the compact shelf area can accommodate 800,000. Currently, the library has 1,000,000 books. The building accommodates 1,000 visitors per day, with a seating capacity of 800 distributed across the plaza.

At the entrance of the library, four Media Walls stand on its opposite sides consisting of four interactive screens that include games, news about the library, information on events and new book additions, digital postcards, and a camera to personalize the postcards.

Checkout and drop-off of borrowed materials can be done autonomously at the library. Eighteen self-borrowing stations are located along the shelves, and the six return stations are located inside the plaza, with one at the entrance and one outside the library and are available 24/7.

An assistive technology area with equipment and specialized software enhances the experience of users with special needs.

The Young Adults area holds six gaming kiosks, a collection of DVDs, music CDs, and journals and magazines.

The library offers 11 double-sided totems with similar functions to the Media Walls. It also houses digital exhibitions, nine individual and group study rooms, 28 student and faculty carrels, six meeting rooms, a computer lab, a 120-seat auditorium, and a special events area with 127 soft padded seats that hosts lectures, conferences, concerts, and more.

A coffee shop is available on the main plaza and welcomes its users to sit, chill and enjoy the quietness provided by the soundproof bubble chairs specially designed for this purpose.

A restaurant welcomes users daily through a buffet and an a la carte menu. In addition, well-attended cooking activities are held like the Italian cooking class that was held during the Italian week celebration in October 2019, and a Spanish cooking workshop that was held a year earlier as part of the various activities held in the Library.

Four innovation stations are equipped with soundproofing, high-tech equipment, music production software, multimedia production software, a photography studio, and a 3D printer. The innovation stations offer members the workspace needed to promote collaboration and entrepreneurship.

The Children’s Library, for newborns to age 11, is designed to accommodate around 50,000 books and invites children to play, learn, read,
and participate in their regular programs. The library has another 100,000 children’s books sorted and held in the compact shelves.

Situated on the ground floor, the Heritage Library, seen in Figure 3, is built with Italian marble and is designed to look like an excavation site, including an entrance of its own. The Heritage Library consists of 11 different sections and comprises over 26,000 of the rarest and most valuable books and 4,000 manuscripts related to Arabic and Islamic civilizations, of which His Excellency Sheikh Hassan donated a significant number, bin Mohammed; bin Ali Al-Thani in 2000. In addition, the collection comprises 1,200 maps and globes, 70,000 historical photographs, serials and archival collections, and writings by travelers who explored the Arabian Gulf region over the centuries. The Heritage Library is unique in the Arab world, as it offers researchers and the public access to its entire collection to promote cultural understanding. The Heritage Library is complemented by one of the most modern preservation and conservation laboratories in the world, which cares for its valuable collection using the latest technologies (Qatar National Library Website, 2019).

The QNL’s design combines a teaching-based space with learning-based activities while creating collaborative spaces that combine the traditional library’s value for researchers and scholars, the value of a place for study, and the value of a place for discovery through the innovation stations. The changing role of libraries is reflected in the newly designed building through collaborative spaces and is emphasized by the traditional set of seats and books, as well as the inclusion of non-library operations such as the restaurant, student carrels and study spaces, auditorium, writing center, tutoring center, computer labs, and a special events area.

The library is the symbol of the nation, the values of which have been translated into the library’s design, symbolizing democratic expression, knowledge, and respect toward books. The library’s role in creating community is one of the most important values reflected in the building’s architecture. It serves as a social gathering, meeting, and technological space.

Building a collection from scratch required huge effort from both the Acquisitions and Cataloging sections to draw up an acquisitions plan and classification.

**Building a collection: Acquisition, cataloging, classification, and storage**

In 2012, the library’s mission became “to preserve the nation’s and region’s heritage and enable the
people of Qatar to positively influence society by creating an exceptional environment for learning and discovery” (Qatar National Library Website, 2019). It was time to move to a location that better reflected this mission and to create the Technical Services Department to manage the library’s new features. As Owino and Dudek (2017) wrote, the responsibility to build a collection and meet the Library’s mission and vision represent a huge undertaking. Extensive research was conducted, and strategic plans emerged on how to source the collection. Negotiations on blanket purchase agreements began in 2013, as did negotiations for single items with antique book dealers for the Heritage Collection. Through this process, a major acquisition of academic and nonacademic materials, mainly in English, for the public library’s Children’s and Young Adults sections was undertaken. There were several options for selecting materials, which included creating purchasing profiles in coordination with the Collection Development specialist and the vendor who refined the profiles and making firm order selections from the database of titles provided by the vendor. For the Heritage materials, it went through single-source vendors, including book fairs and bookshops, as well as auctions and antiquarian dealers. Other purchases of materials, including the majority of the Arabic language materials, were made through Arabic single-source vendors and regional book fairs. As for the purchasing of the electronic and digital sources’ licensing, individual negotiations with the vendors and aggregators were required. Negotiations on purchasing shelf-ready materials (does not need any internal processing like cataloguing, stamping, label fixing) with technical specifications was a major challenge due to the slowness of delivery time and of providing radio-frequency identification (RFID). Another challenge was that since most of the Arabic aggregators of books did not have shelf-ready materials, most of the Arabic books were cataloged and processed in-house (Owino & Dudek, 2016).

During these years, although the physical building was not yet open, the library offered a substantial number of electronic resources to its new members. Major efforts took place to promote the virtual library and market its resources and to bring in new members through the newly formed Access Services team who traveled all over the country to achieve their mission.

The online resources were purchased to meet the needs of all members of society and included Arabic books and journals; academic and research databases; children and teen’s resources; encyclopedias and dictionaries; audiobooks and e-books; international magazines; economic and business resources; and journals in engineering and technology and the arts and humanities.

Implementing the acquisition processes involved electronically selecting and ordering materials; invoicing the purchases; MARC-formatted exporting and confirming of orders; cataloging records; and physical processing, including binding and affixing property stamps, RFID tags, security and theft detection, spine labels, and mylar covers.

Once the purchase was completed, items were brought to the Technical Services’ temporary offices. All items were processed there before being sent to Qatar Foundation’s central storage. This central storage location was acquired in late 2015 for all of Qatar Foundation’s institutions, and QNL has benefited greatly from this state-of-the-art facility. Several large containers of books were shipped there on pallets. At all times, the materials were tracked while they were either in overseas storage or in local Doha storage.

The measuring device was purchased and customized specifically to QNL to measure the physical geometrical aspects of a book: width, height, length. The book is inserted into the machine where it is connected directly to the Library Management System Sierra. The machine reads the measurements and they are directly uploaded into the LMS at the item record.

Classification schemes had to be chosen in the early stages of the collection’s acquisition by the Cataloging, Public Services, and Children’s librarians. For the General Collection, the Library of Congress Classification was chosen. For the Children and Young Adults’ nonfiction items, the Dewey Decimal Classification was chosen, and for fiction, the decision was made to create an internal classification system to differentiate between the main fiction items and items from the Children’s and Young Adults sections. This system used the first three letters of the author’s name. For example, “J FIC MOU” stands for Juvenile,
Fiction, and Mourner (the family name of the author). This decision was made because this classification is the one most often used in public libraries. The Children books were located inside the Children Library while the Fiction for the General Collection were located inside the Plaza.

Once items were cataloged, they were packed in boxes and sent to the Qatar Foundation warehouses for storage until the library was open.

After acquiring and cataloging a new collection and applying the classification schemes, it was time to reflect on the best means for making it reachable by users.

**Testing the book sorter, self-borrowing stations, and return stations**

To meet the standards for a 21st-century state-of-the-art library, it was decided in the early stages of building the library to implement a book sorting facility to address the needs and challenges of the large collection. The book sorter’s main function is to receive returned materials and distribute them via conveyor belts to their appropriate section in the library, where staff can then re-shelve them.

The book sorter’s conveyor belts were built within the infrastructure of the library, with some equipment placed inside the ceiling. Its main room is equipped with 18 bins serving as receiving points for the Children’s and Young Adults collections. Due to the small size of many children’s books that could get caught in the book sorter’s channels, sorter exit stations were not designed for the Children’s Library, nor for the Young Adults section and the entire compact shelf section. From the main room, conveyor belts bring books to the main plaza, where 29 book sorter return stations are embedded within the shelves.

The book sorter’s main functionalities are to read the location code of each item and send it on the belt to the book sorter return station. The book sorter, RFID solution, and digital library management systems are integrated. So, when a book is returned, the RFID station reads the tag to identify whether it belongs to QNL or not. If it does, it will be fed to the conveyor belt, which will take the item to the book sorter “brain” (main room). The brain will read the item’s barcode and identify the designated location of the item based on a mapping table. Stacks Maintenance Units staff retrieve them, presort them, and shelve them accordingly. Figure 4 shows the Ergo-Carts that help staff in presorting and shelving. Ergo-Carts were installed inside each book sorter return station, with another stationed outside the return station in such a way that staff can remove the main cart once it is full and replace it with the second one stationed at the door. The book sorter return stations were planned to cater to
Tiers 1 and 2 in the main plaza where the entire General Collection was located.

Tier 3 books, comprising the Young Adults collection, the Children’s Library, and the compact shelf items, are directly returned in the 18 customized bins inside the main book sorter facility. Staff remove each bin filled with the sorted items and take them manually to their associated area and proceed with the sorting and shelving.

The book sorter works with the RFID technology that the library adopted. All items had a unique barcode identifier and were fitted with a barcode tag. Inside each tag is the security and ISIL code, the unique identifier for QNL that works in conjunction with the item location code.

Prior to the initial use of the book sorter, it underwent a long testing phase, along with the 20 self-borrowing stations that were installed inside the plaza and the 9 return stations that were built specifically to work with the book sorter.

To validate the testing process, testing accounts were created within the circulation module that manages user accounts and transactions related to the borrowing of materials.

Hundreds of items representing all locations and categories were selected for testing. A circulation rule was created for this purpose, and books were moved from the temporary offices to the library building while it was still under construction. To be able to perform the tests efficiently, new user accounts were also created to represent the patron types as 18+ adults, children, and young adults, and were combined with different item types to create different circulation rules.

The entire circulation stream was tested, covering straightforward transactions, overdue items, fines, charges, and changes of status for every book transaction. The testing phase played a crucial role in the success of the book sorter, self-borrowing stations, and return stations.

Now that the collection was built and the book sorter, the self-borrowing stations and return stations were tested, it was time to move forward and plan ahead on how to move the collection to the new Library building.

Moving the collections: Early planning phases

While preparing and building the collection, several voices from the library emerged, expressing their desire for the entire staff to be involved in the moving and shelving of the books. Nevertheless, due to the volume of the collection and the unfamiliarity of the majority of the library staff with the classification schemes and shelving process, the decision was made to hire professional movers, and an exhaustive Request for Proposal (RFP) was drafted and sent to several movers. For the Heritage Library, a different RFP was used, as the materials to be moved included manuscripts, globes, maps, videos, archives, boxed photographs, posters, scientific and traveler’s tools, and more. The requirements for the rare items and the preservation and conservation laboratories were very different from the General Collection’s. The RFP for both the Main Library and the Heritage Library projects were presented simultaneously, during which the potential vendors came and inspected the library to acquaint themselves with the tasks required.

Preparation of the RFP began in January 2016 and, in November 2016, the bid closed, and visits from vendors followed.

As the building was in its final stages and most staff moved in, and while the search for professional movers was conducted, the Library made a step forward related to the children’s and young adults’ collections.

Moving the children and young adults’ books

While the search for professional movers was being conducted, it was decided to accelerate the moving process by initiating the move of the Children’s and Young Adults collections from the Qatar Foundation warehouses and to shelve them without professional services. The Access Services manager led the move and between April 2017 and May 2017, 135,000 books were moved to the library. Each item went through the book sorter and was then presorted and shelved on its corresponding shelf within the Children’s Library, the Young Adults section, and the compact shelves. Management assisted by
providing support staff whose presence helped to complete the project within 35 days.

The plan consisted of asking the staff who volunteered to:

1. Open the boxes received from the warehouse.
2. Feed the books into the book sorter.
3. Monitor the main book sorter room.
4. Empty the bins and presort the books on a table.
5. Shelve the books in their designated locations on the compact shelves and in the Children’s Library and Young Adults section located in the main plaza.

To speed up the process, the initial plan was to divide staff into two shifts (morning and afternoon), and staff would help in a way that did not interfere with their main jobs. This included around 50 staff members from various departments who were mostly unfamiliar with library moves, classification schemes, and shelving. As work was progressing, more adjustments were done, and additional training was provided. The move began on April 18 and was completed successfully on May 23, 2017. Figure 5 shows the Children Library after the move.

After successfully moving the children’s and young adults’ collections, time was pressing to finalize the bid and select professional movers.

**Professional movers: Selection process**

After going through the Request for Proposal to bring professional movers to handle the relocation of the items, several companies answered the bid. The Librarians studied the answers coming from the candidates and made the most relevant selection against the criteria listed. It was tremendously important to have the experience, the flexibility, and the commitment to the project that needed to be completed in 3 months.

In April 2017, the selected company held several meetings between the representatives and the QNL team’s Technical Services Department, represented by Access Services and Acquisitions and Cataloging managers who had played a major role in drafting the RFP. The geographical location, library space involved in the move, and complexity of the project required employing a local company to provide manpower to shelve the books. A local based company was selected for this role. The newly selected movers and the librarians made several visits to the library to become familiarized with the space and its surroundings and to understand the entire plan, and work began on May 23. The project was finished on August 14, over a week ahead of the allotted three-month schedule.
The plan was to bring boxes from the warehouse twice daily to load onto the book sorter and then to shelve them according to the Library of Congress’s guidelines for the General Collection, the Dewey Decimal Classification for the Children’s and Young Adults collections and nonfiction, and a local classification system for fiction. The project managers and librarians held extensive meetings to make major decisions related to the shelving plan.

How was the shelving designed? What decisions were made in shelving items?

**Shelving**

The library houses 1,200 shelves located inside the plaza, designed to accommodate 400,000 books. In addition, 34,000 linear meters of compact shelves can accommodate 800,000 books. At the time of the move, more than 800,000 books were stored in boxes in warehouses. Major decisions needed to be made prior to starting work, such as regarding the capacity of each shelf, the shelving direction to be used, and the style of display on the shelves. The following decisions were made prior to shelving:

- Shelves were to be populated at 70% capacity, leaving 30% for growth.
- Shelving would be conducted from top to bottom and left to right.
- Lower shelves would be left empty to accommodate expansion.
- Books were to be arranged at the front of the shelf, as opposed to further back on the shelf, to ensure visibility of the thin and small books.
- In the compact shelves area, the top and bottom shelves were left empty. We calculated that the middle shelves would be sufficient to house the current stock of books.

Before shelving began, the cataloging manager provided all shelving ranges, which were customized for the book sorter to be able to define the final destination of the book and its exact location on the shelves. Call number ranges were then assigned to each shelf.

The division of the Library of Congress ranges was completed on an Excel spreadsheet that sorted all the books that would go to the tiers. The Excel spreadsheet calculated an average of 32 books as a normal load for each shelf. The spreadsheet flagged every 32nd book to indicate a shelf’s end, and a temporary label displaying the ranges was added to each shelf to assist in the move. In the library management system Sierra, in the item record, the exit point code for the book sorter was translated into an item location code, which was added to all items within the call number range of the exit point.

In less than three months, the project was completed, and approximately 900,000 items were shelved.

In parallel to the general collection move, the plan to move the Heritage Library was prepared while taking into account the nature of the Heritage Library collection.

**Moving the Heritage Library**

The Heritage Collection had been stored in separate building outside Qatar Foundation. This collection holds several printed materials that date back to the 15th century. Due to the sensitive and fragile nature of the documents and the value of the manuscripts and rare books, the Heritage Library required a different moving process. Some items were put in sturdy boxes, while manuscripts were put in cushioned boxes. The movers provided other specialized boxes depending on the nature of the items, and each item was packed carefully and appropriately. Twice a day, boxes were loaded into air-conditioned containers and moved to the library, where a team of movers emptied the boxes and placed the books and materials on their designated shelves in the compact shelving units and in vitrines and cabinets in the Heritage Library. This process was conducted under the supervision of the librarians and conservators of the Heritage Library.

The moving projects for the General Collection and the Heritage Collection were conducted in parallel during the same timeframe.

After the successful move of all the collections and the preparations of all the shelves, a date was selected for the Library’s soft opening and all efforts were directed toward that day.
**The Library’s opening**

The library opened its doors on November 7, 2017. During the first week, the number of visitors reached 18,500, and the library organized multiple events. The weekends were the busiest time, as families came to discover and enjoy the facilities and to sign up for memberships. As successful as the opening was, the Access Service and Public Service teams had to manage the overwhelming number of visitors. Ten days after the inauguration, the library had registered 15,523 new members and had conducted 18,131 borrowing transactions. The soft inauguration was intended to test all policies and procedures to refine and adapt them to the actual needs of the customers. For this, a post-opening committee met each Sunday morning for about 2 months to discuss the findings from both the weekend and the preceding week to find solutions for all challenges faced.

The Children’s Library was hugely popular among families but experienced numerous challenges, and most important was the space of the Library which turned out to be small. Observations suggested the need to enlarge that space to accommodate the growing number of visitors. To cope with this situation librarians made decisions such as reducing the number of weekend events and programs to accommodate regular visits for borrowing books, reading in the library, and enjoying the space. In the library’s early opening days, to encourage youth to read, the loan policy was set to a maximum of 10 books per child or young adult. With the great number of children and families, the shelves were emptied over the weekends, and the loan policy was revised to lend a maximum of five books instead.

In other areas of the library, more signs, informative ones, directive ones, Do and don’t signs were needed to help visitors better navigate the space. Later, some of the Library policies like the Circulation, Code of Conduct, and Technology Borrowing policies were fine-tuned to adapt to the users’ needs with the help of the Facility Management team.

The soft opening did not include the Heritage Library, where work was still being done to install the permanent exhibition. Its inauguration was scheduled to be part of the official library inauguration planned for April 16, 2018, and which would welcome 700 international and local guests. The same day, the library was officially announced to be the Qatar National Library, transferring the title from Dar-Al-Kutub, the former national library.

The Library soft opening’s aim was to test all operations, refine policies and procedures, and provide a great user experience.

**Statistics and current situation**

Today, two years after the opening, the library is still popular among its users, and the building has become a tourist attraction, even for Doha’s one-day visitors. On December 19, 2018, the Best Events Awards World Festival awarded the library two Bronze Elephant Plaques in the categories of “Excellence in Opening Event” and “Use of Technology” for the library’s grand opening ceremony. On October 22, 2019, the library was presented with the “Excellence” award by the American Concrete Institute’s Excellence in Concrete Construction Awards; the building won first place in the “Decorative Concrete” category.

The library organizes an average of 90 events per month that engage all ages, groups, and cultures. Among the most popular events is the Qatar Philharmonic Orchestra’s free concert that is played once per month. As part of the library’s mission to spread knowledge and promote creativity, all access to and participation in events are free of charge.

On December 10, 2019, the metro line serving the QNL was opened, and the library experienced a 20% increase in visitors. Users expressed joy in using the metro, as it was much easier than reaching the library by car, especially after many users had trouble using the library’s parking facilities.

Three years after opening, the library welcomed 168,919 members, received more than 1,520,030 visitors, and made more than 1,682,029 checkout transactions. Nevertheless, these achievements were not made without the need to overcome many challenges.

Throughout the testing phase, regular meetings were planned at the beginning of each week between all public teams, operation teams and Library senior management to share experiences.
and find immediate or long-term solutions to enhance the user experience.

**Challenges and considerations when relocating to a new Library building**

Throughout the planning process, opening, and post-opening, the library faced many expected and unexpected challenges that had to be considered learning opportunities for plans.

**Mission and Role:** The size and complexity of the library, with its three roles as national, public, and research library, complicate the management of its collections, space, and activities, as each role comes with its own set of assumptions, responsibilities, and functions (Breeding, 2011). The National Library is building its National Collection, the Public Library opened its collection for lending books, audio visual like DVDs, Music CDs and Kits with free memberships. The Research Library offered a set of academic books, Librarians help in doing a research and providing articles, or books through the InterLending & Document Supply (ILDS). It is also working on various partnership among them the British Library.

**Building:** As an open space of 45,000 m², the architecture itself is a major challenge in terms of noise control. Many efforts were deployed in order to control noise, such as putting up signs highlighting some ideal behaviors and educating users on how they could help create a better environment for everyone during their visit. New users also had to consent to the well-being of the Library before activating their membership. User behavior changed positively a few months after implementing the measures, proof of their success.

The Media Walls are situated inside the plaza at the entrance of the library. They are popular among children, who often use them to play games. While library services are intended to cater to the needs of all, including children, it is important to define what the roles of these services are, how they should be used, and where they should be located when creating the vision and mission of the library. The media walls would be a great fit inside the Children’s Library, where most of their content can be successfully used.

**Book Sorter:** Customized to fit the library’s needs, the book sorter handles all books, but it was discovered early on that very thin ones can get stuck in the book sorter’s channels upon return. To remedy the problem, all books 8 mm and thinner, the majority of which are children’s books, were flagged to be only returned through the drop-off station situated outside the building, which is not connected to the book sorter. Users can also choose to return the books manually at the User Services Desk. Both measures proved to be successful, leaving smooth operations despite heavy usage. The six return stations inside the Main Plaza accommodate all other sizes and are directly connected to the belt, which registers their location and send the books directly to their corresponding shelves.

**Shelves:** Creating an appropriate shelving strategy throughout the building process can be a major issue. While constructing the library, the shelving plan and its integration with the book sorter was a big challenge for all parties. Careful planning and clear communication among architects, librarians, and integrators were essential. Standing in the Plaza, one can see 3 major Tiers, 1, 2, 3. Each Tier has 7 levels that are marked on each level, i.e. 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7. This translates into Tier 1, level 1, etc. Shelves all aligned inside each level, with numbers starting from 1. The labels inside the shelves reflected the subject of the book, while the location of the shelf read the following: i.e.,

1.3.4 Means Tier 1, Level 3, Shelf 4.

It was not as easy from the first visit to understand the numbering of the shelves, the location of the subjects and the combination between the subject classification and the real location according to the shelf numbers. To make this process practical for users, maps explaining the shelving methodology and the location on the Tiers were designed. The maps greatly helped users, and orientations on how to locate books on the shelves were given on demand throughout the day.

**The Collection:** While building the collection, several vendors were contacted to start acquiring the collection, and negotiations about the shelf-ready materials were conducted. It is very important to create a mechanism to double-check the accuracy of the book’s labels and authority control and to avoid related errors. The shelf-ready labels did not include Arabic language books, so it was necessary
to look for a vendor who could handle the Arabic materials. This resulted in the original cataloging of thousands of materials, which took an extensive amount of time. While building the collection for such an extensive project, it is unavoidable to face technical problems while loading shelf-ready materials that had missing measurements. Creating quality control operations played a major role in determining the success of the operations.

Classification Schemes: During the beginning stages of building the collection, the decision was made to use an internal classification system for fiction books, which used the letter J for “juvenile” and the first three letters of the author’s surname. This created challenges for shelving and finding items on the shelves, as the system did not assign a unique call number to each item. Several number of books by the same author were shelved next to each other, and while this practice is common in public libraries, it made it more complex to locate a book among few written by the same author. The Dewey Decimal Classification was selected for children and young adults’ nonfiction books, and the Library of Congress Classification was selected for the rest of the collection. Careful consideration should be taken during the early stages of building a collection to the selection of the classification scheme and its implication on the retrieval process.

Staffing: staff had to adapt to new changes, including a new location, new scheduling software, new hardware to run the circulation module, RFID gates, new offices, new circulation policies, new organizational charts, new missions, new tasks, new colleagues, and new offices (Buxtorf, 2018). The space of the Library made it challenging to bring everyone together, and although a great communication channel was established, some staff would miss an event or meeting due to the space and various activities.

Loan Policies: While no fees were applied to overdue items initially, this policy was revised two years after the opening, and the long-overdue fees were instated. The replacement fee for a lost membership card was increased to promote user responsibility and promote the card as a symbol of responsibility. Meanwhile, a digital membership card with a new design was being explored and tested to facilitate its use and alleviate on users having an additional card they might lose.

After working through these challenges and revising and fine-tuning library policies, library staff found their efforts to be fruitful. Users adapted to and adopted the library’s policies and now understand how the library functions. In addition, as part of the library’s mission to educate users and encourage them to use the facility, introductory sessions were made available to the new members to highlight the library’s policies and technology to ensure that they made the best use of the library.

Conclusion
This article described the several phrases that the QNL underwent prior to its opening—from the creation of its concept and symbolism, the design of the building’s architecture, and the formation of teams and preparations to the execution of the move in each of these stages. The article described moving the Children’s Collection, the General Collection, and finally the Heritage Library’s distinctive collection. Testing phases were conducted for the RFID technology, book sorter, self-borrowing stations, and return stations. The staff’s move to the library, the staff training prior to the opening, and the soft and official openings were also described, as were statistics about the library’s use and the challenges and lessons learned.

As of the publication of this article, the library remains a great success among the population of Qatar and visitors and is playing a major role in Qatari society. Since its opening in 2017, the library has organized around 90 events per month for a wide range of age groups and interests. Through these activities and offerings, the library is accomplishing its vision and mission of spreading knowledge and educating people. Every layer of society and every individual can find a topic of interest at the library. As people come to this vibrant and dynamic place not only to read a book but also to have coffee, work on their laptop, listen to music, compose a song, play a musical instrument, or even watch the monthly Philharmonic Orchestra play, their lives are being improved. We noticed over the last two years, that users adapted to the library’s policies and took advantage of its offerings. We could see a
clear integration between our users and our library. As librarians in direct contact with users, talking to them and hearing their feedback on and appreciation for what the library offers, lead us to confirm that libraries, despite the emergence of the digital age, play a big role in building societies. Although accessing online information has made great amounts of information readily available, this has not overshadowed the strong impact of the library building on users' lives. The QNL is a thriving example.

References

Breeding, M. (2011). The special challenge for National Libraries. Computers in Libraries, 31(5), 21–24.
Buxtorf, A.-E. (2018). Awakening an Old Lady: The Labrouste room. Art Libraries Journal, 43(1), 53–59.
Elmberg, J. (2011). Libraries as the spaces between us: Recognizing and valuing the third space. Reference and User Services Quarterly, ALA, 50(4), 338–350.
Josh, H.-L. (2018). Encouraging youth activism through participation in community discussions at the library. Young Adult Library Services, Chicago, 16(2), 26–30.

Krueger, A. (2019). Where libraries are the tourist attractions. New York Times. https://www.nytimes.com/2019/08/10/travel/libraries-are-the-tourist-attractions.html
Lesneki, T. E. (2019). Madison Central Library: The Art-Infused Library. In Diane Koen and Traci Engel Lesneski (Eds.) Library design for the 21st century: Collaborative strategies to ensure success (pp. 79–90). IFLA Publications.
McDonald, V. (2019). Building Tomorrow’s Library Today: How the six spheres vision kept us on track. In Diane Koen and Traci Engel Lesneski (Eds.) Library design for the 21st century: Collaborative strategies to ensure success (pp. 104–116). IFLA Publications.
Ostergard, M. (2019). Dokk1 – Re-inventing Space Praxis: A Mash-up Library, a democratic space, a City Lounge or a space for diversity? In Diane Koen and Traci Engel Lesneski (Eds.) Library design for the 21st century: Collaborative strategies to ensure success (pp. 91–103). IFLA Publications.
Owino, H., & Dudek, K. (2016). From the concept to results: A case study on the collection development for the ODC-Opening Day Collection at Qatar National Library. Proceedings of the Charleston Library Conference. http://dx.doi.org/10.5703/1288284316448
Owino, H., & Dudek, K. (2017). People in the news. Insights, 30(1), 84–90.