

A Feasibility Study of a Crowdsourcing Project in Promoting and Enriching the Local History Collection and User Engagement of Quezon City Public Library

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Abstract. Crowdsourcing is a novel concept adapted by some public libraries in the world in getting ideas for their projects. The study sought to determine the feasibility of integrating crowdsourcing to a public library in the Philippines, the Quezon City Public Library, with the objective of strengthening the local history collection and increasing user engagement. Interview with the librarians and other personnel presented several ideas on what projects to focus on and how to effectively carry them out. An existing platform, besides social media accounts, was discovered to potentially be used for the envisioned project. The study showed a technical feasibility assessment of the project which included five factors: technology and techniques, technical capacity/skills, human and financial resources, resistance, and integration. Results showed that implementing a crowdsourcing project in Quezon City Public Library is technically feasible.

Keywords: Crowdsourcing, Local History Collection, User Engagement

1. Background of the Study

Public libraries play an important role in the community's cultural and artistic development and the shaping of its cultural identity (Gill, 2001). The public library has a distinct role in the preservation of the community's cultural heritage (Bonn, Kendall, & McDonough, 2007). UNESCO (1994) in its Public Library Manifesto stated that the key mission of the public library should include the promotion of cultural heritage and fostering intercultural dialogue and favouring cultural diversity. The collection of the library shall represent the history and cultural interests of the community (Gill, 2001).

The Public Library Manifesto states that it is the responsibility of local and national authorities to create necessary legislations and finance the operations of public libraries (UNESCO, 1994). But not all government could provide the needed budget of its public library. Due to economic recession, some libraries are allocated with a much lower budget that forced them to cut down and reassess their services to their users (Giannopoulou, A., & Tsakonas, G., 2013). This poses as an integral dilemma in the goal of the library to adapt to the global changes and hinders the actualization of proposed projects.

Across the globe, libraries eventually looked for alternative ways to pursue projects. Crowdsourcing, which, as defined by Howe (n.d) is the act of taking a job or task traditionally done by an employee and offering it to an undefined, generally group of people through open call. Although it was not developed in the field of librarianship, it was innovated as a response to the same dilemma. Crowdsourcing is a term coined by Jeff Howe in 2006 in an article, *The Rise of Crowdsourcing*, and was published online in "Wired" magazine (Kowalska, 2013). In the article, Howe shared a narrative of how various businessmen and women facing funding problems found better options from the crowd at a lower cost (Howe, 2006). The notable involvement of the crowd in the situation was recognized to be as an important contributing agent to the success of projects at little to no cost at all. Howe further categorized the variations of crowdsourcing: collective intelligence, crowdcreation, crowdvoting, and crowdfunding (Kowalska, 2013).

In the context of libraries, the 'crowd' to outsource from pertains to the library users. Not only will crowdsourcing respond to the funding dilemma but it shall also serve as a bridge to reconnect the relationship between the library and the users; and slowly rebuild social engagement in the pursuit to achieve a shared goal through collaboration with the community (Holley, 2010, p. 2). This large collective public support posed as an effective response to difficulties, namely limited budget and manpower, faced by the library in organizing projects (Kowalska, 2013). Crowdsourcing now gives an opportunity to transition to digital form and serves as an avenue to foster new engagements with, and reach out to the public (Consortium, 2015). It uses technology to its advantage and make its presence known.

The crowdsourcing project firstly claimed to be associated with librarianship is the Distributed Proofreaders launched in 2000. It was conceptualized to support the digitization of books to Ebooks for the Project Gutenberg. Volunteers were tasked to go through the books page by page, then find, scan, OCR, and mark up the books (Holley, 2010; Kowalska, 2013). In Australia, the National Library launched two projects: Picture Australia in 2006; and the Australian Newspapers Digitisation Program in August 2008 throughout November 2009. The former, in partnership with Flickr, encouraged users to contribute and upload images in the collection with categories Australia Day and People, Places and Events which have brought together photos from 50 cultural institutions both in Australia and overseas (Holley, 2010; Kowalska, 2013). The latter tapped the users to help search and correct the contents of the historic Australian newspapers (Holley, 2010). This project reached thousands of people, as Holley (2010) listed, approximately more than 5,000 in August 2009— and has achieved 4.7 million lines in 216, 000 articles; then 6,000 in November 2009— have accomplished 7 million lines in 318, 000 articles. New York, on the other hand, is known for two projects as well: What's On the Menu? which asked users to transcribe historical menus; then Emigrant City, in pursuit to restore and reorganize the 19th century to early 20th century real estate records of the Emigrant City Banks, asked the citizens for help in transcribing aforementioned documents (Consortium, 2015). Given all of these data, it is evident that crowdsourcing proved to be an effective method. Notably, the cultural function of libraries was also manifested in some of the projects, namely, Picture Australia and What's On the Menu?. The outsourced data contributed to the collection of the library and supported in shaping the cultural identity of its respective communities.

In Singapore, the Singapore Ministry of Information, Communications and the Arts and facilitated by the National Library Board in partnership with other local and national institutions like national libraries, heritage agencies, and research institutions, developed the Singapore Memory Project in 2011 to collect, preserve, and build a national cultural content about Singapore's culture and history that can be available to its citizens and the world (Grincheva, 2015). Through an online portal and its mobile application, anyone who would like to participate can create an account and upload their 'memories'- any text, photographs or videos. This project aims to build "a culture of remembering, which will nurture bonding and rootedness" (Grincheva, 2015, p.1).

In the Philippines, the Quezon City Public Library (QCPL) stands out to be one of the most developed and progressive public libraries. It is driven by its vision to be "a premier and world class public library, responsive to the information and research needs of the community"; and mission "to provide quality resources and services to its community's changing needs, ensure continuous development of staff, and build strong partnerships with government and non-government agencies, both local and international" (QCPL, n.d., para. 1). The

library houses a vast range of collection that caters to the needs of the users. It also ensures to go beyond helping the individual's development in education and foster the learning of new skills through workshops and seminars. These events are vastly inclusive of the changing needs of respective age groups from children, teenagers, adult, and senior citizen.

The Quezon City Public Library fulfills its cultural function with the Local History Collection which is comprised of materials about Quezon City (QC), its people, places, and events (QCPL, n.d.). The library's website indicates that it houses books published by Quezon City Departments and other government agencies, coffee table books, annual reports, facts and figures, souvenir programs, news clippings, maps, CD's and manuals, directories, newsletters, brochures/pamphlets, theses about Quezon City, and Video recordings (QCPL, n.d.). A librarian at QCPL, shared that when she went through the collection, it basically consists of clippings, vertical files, and pamphlets. Furthermore, the local history division is relatively new. The publication team is working on a book about the in-depth history of the Barangays in Quezon City. The librarian confirmed that there is no photo collection of Quezon City, which also persists as a problem in the publication of the books. Suffice to say, the Quezon City Public Library is only in its starting years in fulfilling its cultural function. There is a clear need to strengthen the collection and explore ways on how to achieve this. The librarian expressed an interest in collecting photos of Quezon City within a specific time frame in the past.

2. Purpose of the Study

Crowdsourcing is a novelty to Quezon City Public Library. Thus far, there is no crowdsourcing project that is being proposed or planned. This poses a pronounced opportunity to introduce crowdsourcing to the library as a method to reach out to users, and at the same time enrich and strengthen the library's local history collection.

The study aims to strengthen the library's local history collection and increase the user engagement of the Quezon City Public Library using the concept of crowdsourcing. It seeks to explore the technical feasibility of implementing a crowdsourcing project in the Quezon City Public Library.

3. Literature Review

Two of the most successful crowdsourcing projects that contributed to the cultural heritage are the "Picture Australia" by the National Library of Australia and the "Singapore Memory Project", a national initiative facilitated by the National Library of Singapore. These projects served as the model for this

study. This part will discuss the description, nature, and implementation of the said projects.

Picture Australia

Kowalska (2013) emphasized how the National Library of Australia was a precursor in taking strictly library crowdsourcing project initiatives. Here, she mentioned and elaborated on one known project - the "Picture Australia". With the theme of Australia, the project invited Web users to submit photos. The user can upload photos at Flickr into two categories: 'Australia Day' and 'People, Places and Events'. Then, it was said that the photos were transferred weekly to 'www.pictureaustralia.org' and brought together more than 50 cultural institutions both in Australia and abroad. However, in 2008, the entire collection was transferred to Trove.

At present, the Trove classified the collection under 'Pictures, photos, objects' (Pictures, photos, objects, n.d.) which has over 2 million images. Users can upload photos using Flickr platform, under the group 'Trove: Australia in Pictures'. One has to join the group to be able to submit photos. Currently, it has 3,822 members with 393,500 photos (Trove: Australia in Pictures, n.d.). It is interesting to note that the Flickr group recognizes the Top five contributors because this action can be a motivating factor for the users that encourage them to participate more (Holley, 2010). Another variable in the site is the discussions division where members can post their concerns in a forum like interface. These data show how the project has indeed integrated users into the activity.

Singapore Memory Project

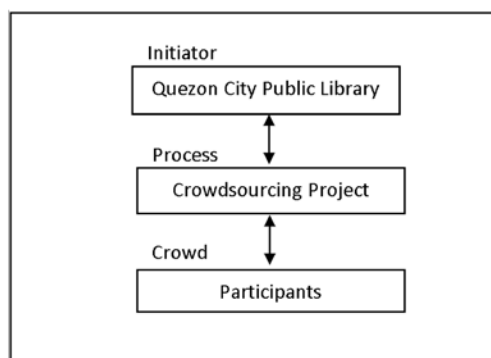
According to Chew and Jailan (2013), assistant directors at the National Library Board Singapore, the Singapore Memory Project (SMP) started in 2011 that aimed "to collect, preserve and provide access to Singapore's knowledge materials, so as to tell the Singapore Story". They also stated that the project envisioned the outcome to showcase and trace the development of Singapore, the views of ordinary individuals in particular, "in the form of memories and shared experiences of the nation". Furthermore, that the project was a collaboration of various organizations and agencies (government, non-government and private) that shared the same vision but was facilitated by the National Library of Singapore. It embodied the role of the National Library as the repository of Singapore's publishing heritage. The goal of the SMP was "to engage individuals, communities, groups or institutions that have formed memories and content about Singapore and would like to contribute them". Hence, the project did not restrict its participants. In fact, citizenship was not a prerequisite. The team acknowledged the possibility that overseas Singaporean and non-citizens, tourists, permanent residents, students, and business people had at least a single memory of Singapore, either past or present, they could

contribute. These may be “photographs, letters, ephemeral, manuscripts, videos, or oral interviews that are stories and memories that are related to Singapore”, either in physical or digital format. The public call for contributions was communicated through: “advertisements/advertorials in print, broadcast and online media; social media platforms; outdoor publicity, distribution of posters and flyers; and exhibitions and roadshows at community and residential areas, libraries, schools, and partner agencies”. It can be seen how they made use of both traditional and modern ways. Chew and Jailan (2013) also discussed and demonstrated SMP’s “digital and social media eco-system”. The primary portal was the SMP’s website, SingaporeMemory.SG, launched in March 2012. Users had options to log in, either create their own “personal digital memory account” or link their Facebook, Yahoo, and Google accounts. Contributors were to fill up the submission form and add until five attachments. The project also put up the SG Memory Smartphone App called “SG Memory” to reach more users, had the concept of memories being “captured as they happen”. Twitter was also chosen to be one of the initial platforms. SMP created and used the hashtag #SGmemory to identify tweets related to the SMP, highlighting that “memories could also be expressed as individual tweets”. However, the SMP team encountered problems due to Twitter’s Terms of Service and API rules. Facebook was also utilized but was faced with the same conflict as using Twitter. Lastly, blogs were also considered as there are many blogs that originated from Singapore (Blogspot.sg). However, “the primary challenge for the SMP was to identify – on a large scale – blogs and blog posts relevant to the project, and to be able to contact and obtain permissions from the content owners”. Nonetheless, the SMP received about 300,000 personal memories. In 2018, the singaporememory.org already has 1,077,363 memories added (Collections, n.d.). The hashtag #SGmemory is still searchable in Twitter, Facebook, Instagram, and blogs; and have posts dated recently. The SMP has developed their official accounts on said social media platforms, with the username ‘@irememberSG’; and the blog site www.iremember.sg. The Facebook page has a ‘Community’ section that displays the posts by other people. These show that the SMP has made itself known to the public. It invited participants and increasingly built a community already that works toward a single goal.

4. Methodology

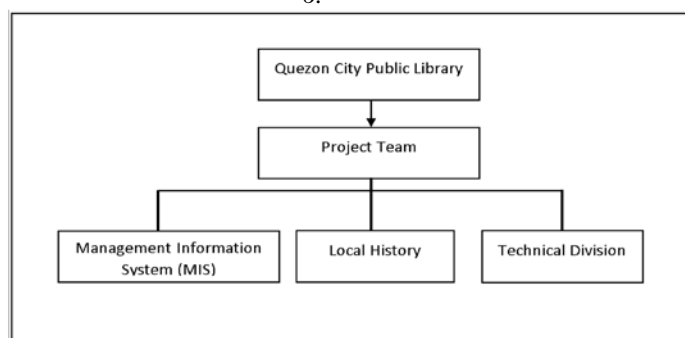
This exploratory study using interview applies the crowdsourcing concept in the context of the Philippines, specifically to the Quezon City Public Library. It explores the technical feasibility of the crowdsourcing project in strengthening the Local History Collection and increasing user engagement of the Quezon City Public Library.

Estellés-Arolas and Gonzáles-Ladrón-de-Guevara (2012) identified three elements of crowdsourcing: crowd, initiator, and process. Based on this study, the figure below identifies the three elements for the Quezon City Public Library crowdsourcing project.



5. *Figure 1. Conceptual Framework*

6.



7. *Figure 2. Initiator: Sections involved*

The figure above illustrates how the initiator will manage the crowdsourcing project. In the context of Quezon City Public Library, the following sections were chosen to be part of the crowdsourcing project. This study only focused and coordinated with the main branch and not all the 19 branches across the seven districts of Quezon City. The heads of the three divisions were interviewed: (1) the Management Information System (MIS), the section that developed the official website and are in-charge of the technical aspect, network, OPAC, and the library system software. They implement information and communication technologies for the needs and projects of the library.; (2) Local History (LH), the section that houses all materials about Quezon City, aiming to provide data, statistics, historical information and materials for the students, researchers, historians, and other QC constituents; and (3) Technical Division, the section mainly involved in identification, selection, organization, and preparation of the library's collection. These three heads of the following

divisions were determined to be the main respondents because the divisions' functions correspond to the key elements of the Singapore Memory Project and can preliminarily plan the project and determine its feasibility.

The research instrument used was an interview questionnaire divided into two parts. The first part was designed to gather information to help formulate the crowdsourcing project. The questionnaire was based on Estellés-Arolas and Gonzáles-Ladrón-de-Guevara's (2012) eight characteristics of the elements of crowdsourcing and the key elements that were used in the Singapore Memory Project. The second part utilized Kernaghan's (2012) technical feasibility assessment, taken in the context of Quezon City Public Library Project to determine technical feasibility of the crowdsourcing project.

5. Discussion and Results

5.1 Possible Crowdsourcing Project

The first question asked determines the heads' awareness on crowdsourcing. Results showed that only the Technical Division head was knowledgeable about crowdsourcing, having learned it from a conference in Singapore and is familiar with the Singapore Memory Project. The Management Information System (MIS) Head and Local History (LH) Head were both not familiar with it. Despite this apparent lack of awareness on the concept, all of the librarians agreed that they want to focus on developing the Local History Collection of the QCPL, which thus far, the only includes coffee table books, publications about QC, and others—describing these as vertical files and newspaper clippings. All three heads described the collection as insufficient and weak. The librarians all think that pictures about Quezon City would help improve the quality and quantity of the collection and could better cater to the information needs of students, historians, teachers, researchers, and QC constituents.

The librarians and the researcher proceeded to conceptualizing the crowdsourcing project that aimed to enrich the Local History Collection of the library. The main areas discussed were the theme, medium and avenue, marketing and promotion, process, and timeline. The main output to be crowdsourced are photos of Quezon City, the main theme being historical photographs. It could be categorized by timeline (70s, 80s, 90s), Significant events in Quezon City Through the years, and Barangays. The medium and avenue of the project would be the institution's official social media account (Facebook) and website, and the Local Government of Quezon City's social media account (Facebook and Twitter). Another platform that can be considered, as suggested by the MIS and LH Head is the D-Space. It is an open digital repository that can preserve and allow easy and open access to digital content including text, images, moving images, mpegs, and data sets (About DSpace, n.d.). This is advantageous because this platform is currently being

used by the library through the QC LIBROS (Quezon City Library Repository Online System). With the assistance of the I.T. department, it can be explored for its possible usage in the crowdsourcing project—where the photos could be uploaded, with the approval of the I.T. department. Or, as the Singapore Memory Project did, they can create an application for easier access and upload of the photos.

All of the librarians identified marketing and promotion as the defining factors to the success of the crowdsourcing project because it will determine the participation of the users. The information on the publicity materials should be concise and easy to understand. It should clearly specify the users' role in the project to be able to encourage them in joining. For an effective reach, hashtags will also be used. The librarians stated that conventional physical publicity materials, such as posters, flyers, signages, and tarpaulins should be posted and distributed through the 19 district libraries of the Quezon City Public Library to reach those without internet access. The process by which the project can be implemented can be through the following: another research project sponsored by the Local Government and the library; and contests which can motivate the crowd with prizes that can be acquired from partnerships with publishing houses. The time frame for the project is dependent on the chosen process by which it will proceed.

In introducing and promoting the project, the researcher highlighted that more than the technical aspect of the project, it is important to carefully plan a content that resonate its intangible goal of fulfilling the library's cultural function. For the Singapore Memory Project, they built it on 'memories' – of the people, about the country, and sharing their own for others to enjoy. Filipinos are also one of the most nationalistic people. Building on this, it will be a great approach to convey how they will be contributing to the country's rich history will establish a sense of belongingness in the community.

5.2 Technical Feasibility Assessment

Technology and Techniques. All the heads of the library interviewed stated that the Facebook page and official website can both be used for the crowdsourcing project. However, they noted that the Facebook page needs to be strengthened. The D-Space will be studied and explored for the project as well. Physical marketing materials can be effectively distributed through the participation of the district libraries.

Most of them fully agree that the strategies used by the Singapore Memory Project could be adapted to the project with changes to suit the needs of the Philippines. A notable strategy that can be highly effective in the Philippine context is the use of hashtags, as Filipinos are actively using this in their social media accounts.

In processing the photos submitted, the library owns a large scanner that can be used for scanning and digitizing the physical photograph entries. The heads said that the library is technically capable in executing the project.

Technical Capacity/ Skills. All of the heads stated that the staff are certainly capable of managing the project. The tasks will be delegated accordingly to their specialized skills. One of the heads reminded that because it will be a pioneer project, it will not be 100% perfect, and first timer problems will definitely be encountered. It will be necessary to organize and conduct a workshop to introduce crowdsourcing to the staff. The Singapore Memory Project should also be analyzed and studied by the team.

Human and Financial Resources. All of the heads stated that the project can be funded and shared that the local government is supportive of the library's project. It does not require a large amount of budget, as that was the root purpose of crowdsourcing. The projected costs would only be for printing of physical publicity materials. The prizes could also be listed but it could be waived through the partnerships and sponsorships with publishing houses. The Project team was also conceptualized with the corresponding tasks and deliverables. More than the divisions involved in this study, the table below shows teams that can be created and divisions that will be involved in the project too. This includes the project managers, historians, district librarians, and marketing department.

Team A (5-10 people)	Team B (16 people)	Team C (Minimum of 3)
Project Manager MIS Head MIS/I.T. Staff LH Head Historian	6 District Librarians, with 1 I.T. Staff or assistant each LH Head I.T. staff of LH I.T. Librarian, with 1 assistant	LH Head I.T. Staff Marketing Staff

Table 1. Project Team

Team A will be the main team for the crowdsourcing project, headed by the project manager. This team shall finalize the conceptualization of the project and present the project proposal. Team A will coordinate with other teams for the implementation of the project. Team B's role is to facilitate and establish the project in the district libraries—to be able to make sure that it is well understood and received by the communities in the district branches. Team C will be in-charged of overall the marketing and promotion of the project.

Challenges. All of the heads agree that this crowdsourcing project is feasible and did not express any contentions in pursuing the proposal. However, three challenges and issues were identified.

The main challenge, as echoed most specially by the MIS head, is the credibility and reliability of the photos and its sources. An evaluation and verification process will be necessary to address this. The I.T. staff, historian, and district librarians will have distinct roles in this part. Proof of ownership of photos would be required as part of the submission entry. Having this brought up in the planning will allow the team to allot enough time for this process in their time frame.

The second challenge is on the ownership of photo or Copyright, which is the legal protection extended to the owner of the rights in an original work (About Copyright, n.d.). This is identified as a challenge because photographic works are included in the works covered by the copyright protection, given to the natural person who created the work. In the context of the crowdsourcing project, this can be considered to be under the statutory fair uses, given that the owner will permit to the publication and free access of his or her photo. (About Copyright, n.d.) The names of the contributors, unless stated against, will be indicated in the caption and encoded on the metadata of the photos to be able to give due credit.

The third challenge presented is about the Philippine Republic Act 10173 or the Data Privacy Act of 2012, defined as a policy created to protect individual personal information in information and communication systems in the government and the private sector. There are important terms that need to be defined: data subject, which refers to an individual whose personal information is processed; consent of data subject, which refers to any freely given and informed indication of will that the data subject agrees to the collection and processing of his/her personal information; information and communication systems, which refers to the system processing the data; personal information controller, which refers to a person or organization who controls, hold, and processes the collection and data; and processing, which is any action performed upon the personal information like collection, recording, organization, storage, and retrieval (Republic Act 10173 – Data Privacy Act of 2012, 2016). In the context of the Quezon City Public Library's proposed crowdsourcing project, getting the consent will be the first step. It is agreed that most photos would be places, lessening the issue with data subjects. The information and communication systems of the project will be the social media accounts, website, and other platforms. The personal information controller will be the MIS/I.T. head and staff. The processes that will be involved will be organization and storage of the photos to the database and Local History collection. These suggested information by the researcher can be used as reference for addressing the issues revolving the Data Privacy Act. These can be indicated in the mechanics of the project, or at the page of the submission button, so that participants can see and make informed consent.

Integration. The events of Quezon City Public Library are patterned and integrated with events that are widely known and celebrate. For the

crowdsourcing project, this can be done as well. Some of the events suggested were the QCPL's anniversary (August 16), Quezon City Day (August 19), Barangay Fiestas, and the Library Month (November). The national and local government are supportive of these events which can help encourage the constituents. This integration with historical and social events can help the people understand about the relevance, role, and contribution of the crowdsourcing project in enriching the history collection of the library.

This proposal can also be presented to other national institutions such as the National Library and Filipinas Heritage Library; heritage agencies like National Commission for Culture and the Arts, and National Historical Commission; and other NGOs (Non-Government Organizations) for partnerships and to get support in promoting and facilitating the project.

6. Conclusion

Findings showed, as echoed by the respondents, that the Local History Collection of Quezon City Public Library needs to be improved. The collection can be strengthened through the implementation of the crowdsourcing project that will be patterned from the Singapore Memory Project. Moreover, this project will also increase its user engagement and allow citizens to realize the public library's cultural function in preserving the country's rich history. Photos were identified to be the target crowdsourced resources that can best improve the quality of the collection. The heads and researcher were able to conceptualize the crowdsourcing project. There are various themes that can be applied and can be integrated with different events. Support from national and local government, as well as national institutions can be sought. The project can proceed as a research project or launched as a contest with prizes as motivational factor. The main medium and avenue will be through its social media platforms, Facebook, and official website. D-Space feasibility for the project will be explored by the I.T. department. Marketing and promotion were reiterated to be the most critical and vital factor in the success of the project. Online and physical publicity materials will be used to advertise the project. The time frame depends on the choice of theme, process, and on specific goals and objectives of the project.

The lack of knowledge and skills in crowdsourcing of the staff will be addressed through workshops on crowdsourcing and study on Singapore Memory Project. The challenges identified and addressed are credibility and reliability of photos, copyright issues, and data privacy.

The crowdsourcing project appears to be technically feasible. The institution has the necessary technology needed to execute the project. The library can proceed with it using this study and create a team that will organize, actualize, and finalize the project.

References

- Bonn, M., Kendall, L., & McDonough, J. Libraries and Archives and the Preservation of Intangible Cultural Heritage: Defining a Research Agenda, 64 (2007).
- Chan, C. (2014, November). *Crowdsourcing Disaster Response*. ResearchGate. https://www.researchgate.net/publication/268448750_Crowdsourcing_Disaster_Response.
- Chew, I., & Jailan, H. Preserving the crowdsourced memories of a nation, The Singapore Memory Project. In Conference Proceedings, The Memory of the World in the Digital Age: Digitization and Preservation 26, 354-365 (2013).
- Chhatwal, A., & Mahajan, P. Crowdsourcing in Libraries: An Operational Framework. *International Journal of Digital Library Services*, 5(3), 54-58 (2015).
- Christensson, P. (2008, January 14). Web 2.0 Definition. Retrieved 2018, Nov 9, from <https://techterms.com>
- Collections. (n.d.). Retrieved from <https://www.singaporememory.sg/campaigns>
- Consortium, C. (2015, November 18). Crowdsourcing in the 21st Century Library, Museum and Archive. Retrieved from <https://medium.com/@crowdconsortium/crowdsourcing-in-the-21st-century-library-museum-and-archive-694155df93c0>
- Cooper, R., Dempsey, P. R., Menon, V., & Millson-Martula, C. Remote library users—needs and Expectations (1998).
- Djupdahl, M., Eskor, E., Jonsson, Ö., Runardotter, M., Ruusalepp, R., & Sigurðsson, N. (2013). Review of Crowdsourcing Projects and how they relate to Linked Open Data.
- Doan, A., Ramakrishnan, R., & Halevy, A. Y. Crowdsourcing systems on the world-wide web. *Communications of the ACM*, 54(4), 86-96, (2011).
- Estellés-Arolas, E., & González-Ladrón-De-Guevara, F. Towards an integrated crowdsourcing definition. *Journal of Information science*, 38(2), 189-200, (2012).
- Filipiniana, Local History and Archives Section. (n.d.). Retrieved from <http://www.quezoncitypubliclibrary.org/Division/Readers/Filipiniana-Section>
- Giannopoulou, A., & Tsakonas, G. (2013). 10th Northumbria International Conference on Performance Measurement in Libraries and Information Services. In *Proceedings of the 10th Northumbria International Conference on Performance Measurement in Libraries and Information Services* (pp. 1–360). York, UK; University of York. file:///C:/Users/admin/Downloads/Assessing_library_performance_in_the_sho.pdf.
- Gill, P. (Ed.). *The Public Library Service: IFLA/UNESCO Guidelines for Development*. Berlin, Boston: DE GRUYTER SAUR (2001). <https://doi.org/10.1515/9783110961959>
- Go, H. M., Caro, J. D. L., Pabico, J. C., & Tee, M. L. (2015). Crowdsourcing for healthcare resource allocation. *2015 6th International Conference on*

- Information, Intelligence, Systems and Applications (IISA)*.
<https://doi.org/10.1109/iisa.2015.7388091>
- Grincheva, N. (2015). Singapore Memory Project: Producing Public Memory through Social Media. In *Civic Media Project*, MIT Press.
https://www.researchgate.net/publication/322298228_Singapore_Memory_Project_Producing_Public_Memory_through_Social_Media.
- Hines, S. Libraries and distant users: an evolving relationship. *Technology in Libraries: Essays in Honour of Anne GrodzinsLipow* (2008).
- Holley, R. Crowdsourcing: How and Why Should Libraries Do It? *D-Lib Magazine*, 16(3/4). (2010, March/April). doi:10.1045/march2010-holley
- Howe, J. (n.d.). Crowdsourcing: A Definition [Web log post]. Retrieved from <http://www.crowdsourcing.com/>
- Howe, J. (2006, June 1). The Rise of Crowdsourcing. Retrieved from <https://www.wired.com/2006/06/crowds/>
- IFLA. (1994). IFLA/UNESCO Public Library Manifesto 1994. Retrieved from <https://www.ifla.org/publications/iflaunesco-public-library-manifesto-1994>
- Kernaghan, S. (2012). *Technical Feasibility Assessments*. Retrieved from http://training.i-s-e-t.org/wp-content/uploads/modulesContent/pdfs/ISET_ModuleCRFSet3_7_0.pdf
- Kowalska, M. (2013, March 20). Crowdsourcing in Libraries. Retrieved from <http://eprints.rclis.org/18807/>
- Manabat, A. R., & del Mundo, R. J. C. (2017). How Do We Collect?: Experiences and Perceptions of Metro Manila Public Libraries in Collecting Local Cultural Heritage. Presented at *the 5th International Conference of Asian Special Libraries 2017 (ICoASL 2017)*, UIN Sunan Kalijaga, Yogyakarta, Indonesia. Retrieved from https://www.researchgate.net/publication/322419619_How_Do_We_Collect_Experiences_and_Perceptions_of_Metro_Manila_Public_Libraries_in_Collecting_Local_Cultural_Heritage
- McKinley, D. (2013, June 21). How effectively are crowdsourcing websites supporting volunteer participation and quality contribution? Presented at Hamilton City Library, Hamilton, New Zealand. Retrieved from <http://www.digitalglam.org/crowdsourcing/talks>
- Nonnecke, B. M., Mohanty, S., Lee, A., Lee, J., Beckman, S., Mi, J., Krishnan, S., Roxas, R. E., Oco, N., Crittenden, C., & Goldberg, K. (2017). Malasakit 1.0: A participatory online platform for crowdsourcing disaster risk reduction strategies in the philippines. *2017 IEEE Global Humanitarian Technology Conference (GHTC)*. <https://doi.org/10.1109/ghtc.2017.8239265>
- Objectives and Functions of Public Library. (n.d.). Retrieved from https://epgp.inflibnet.ac.in/epgpdata/uploads/epgp_content/library_and_information_science/public_libraries/03.functions_of_public_library/et/2109_et_3.pdf.
- Omeluzor, S. U., Bamidele, I. A., Ukangwa, C. C., & Amadi, H. U. The relevance of a library in the 21st century: Students perception. *International Journal of Library and Information Science*, 5(6), 160-166, (2013).
- Owens, T. (2012, August 03). The Crowd and The Library. Retrieved from

- <http://www.trevorowens.org/2012/05/the-crowd-and-the-library/>
 Peacemaker, B., & Heinze, J. S. Moving users, moving results: exploring customer engagement for deeper relationships. *College & Undergraduate Libraries*, 22(3-4), 261-272, (2015).
 QCPL. (n.d.). Retrieved October 15, 2018, from <http://www.quezoncitypubliclibrary.org/About/History>
 Quinn, S. (2013). Rappler.com: Innovation in the Philippines. In *Asia's Media Innovators Volume 3: Crowdsourcing in Asian Journalism* (Vol. 3, pp. 39–47). essay, Konrad-Adenauer- Stiftung.
 Republic Act 10173 – Data Privacy Act of 2012. (2016, July 19). Retrieved from <https://www.privacy.gov.ph/data-privacy-act/>
 Setshwane, C. M., & Oats, L. Cultural preservation through public libraries: Lessons from Kanye Public Library, (2017).
 Thuan, Nguyen Hoang & Antunes, Pedro & Johnstone, David. (2013). Factors Influencing the Decision to Crowdfund. 8224. 110-125. 10.1007/978-3-642-41347-6_9.
 Trove: Australia in Pictures. (n.d.). Retrieved from http://www.flickr.com/groups/pictureaustralia_ppe/
 UNESCO. (1994). *Public Library Manifesto*. Retrieved from <http://unesdoc.unesco.org/images/0011/001121/112122eo.pdf>
 United Nations Educational, Scientific and Cultural Organization (n.d). Tangible Cultural Heritage. Retrieved from <http://www.unesco.org/new/en/cairo/culture/tangible-cultural-heritage/>
 Vergara, R. A. G. (2016, February). *Determinants of crowdfunding success: a multi-case study of Philippine-based projects*. ResearchGate.