Abstract

Library services play a critical role in supporting communities across the African continent as they pursue sustainable economic growth and social progress. In spite of this, libraries are often overlooked as potential development partners, largely because they lack the data to effectively illustrate the many ways in which they are positively impacting their communities. These data gaps therefore prevent libraries from achieving their full potential within local, regional, and national development initiatives.

The Advancing Library Visibility in Africa (ALVA) project is a joint research initiative between AfLIA and the University of Washington that seeks to overcome these data gaps so that libraries can fully achieve this potential as development partners. The project is designing methods, tools, and resources for public and community libraries, to enable them to collect meaningful data about how they are contributing to development. This will directly support the efforts of all types of libraries seeking to integrate themselves into the development ecosystem, and more broadly advance understandings of the role of the library field in achieving Sustainable Development Goals (SDGs).

The project has focused on data collection efforts in two areas to support the connection between public or community libraries and development priorities. The first area focuses on collecting physical location of libraries across multiple countries and making these data available more broadly in the open data ecosystem. This effort addresses the data gap related to the availability of location data which opens opportunities for analyzing the potential reach of library services within communities when combined with other datasets while also opening opportunities for libraries to make their services more visible to their communities.

The second area examines what types of data libraries should be collecting to better illustrate their strength as development partners. This research will help us to identify gaps in the types of data that libraries are currently collecting, so that we can work with these libraries to co-develop new data collection methods and strategies. These metrics are expected to capture impact of library services rather than the transactional nature of traditional library metrics.

Our paper will present an overview of the key research questions, tools and processes used, and results to date on the data collection efforts. Additionally, we will present the plan for future work and demonstrate potential uses of the data by the library field.

Keywords
Introduction

As evidenced by this year’s theme for the 3rd AfLIA Conference & 5th African Library Summit, there is growing excitement about potential connections between libraries and the achievement of Sustainable Development Goals (SDGs) across the African continent. In this and other venues, librarians have highlighted the natural potential of the library sector for providing leadership in the arena of national development. At the 2018 IFLA General Conference and Assembly, for example, Ashraf (2018) argues that libraries play a unique role within communities because of their focus on empowerment, belief in equality of access, emphasis on diversity, and democratic approach. These attributes grant libraries a high level of social capital within the communities they serve, and enable them to provide services that are effective in supporting community members as they pursue social progress and sustainable economic opportunities. This means that libraries have a strong opportunity to influence a broad range of SDGs by increasing access to information and communication technologies (ICTs; Abdulla 1998; Akintunde 2004; Bamgbose and Etim 2015), promoting literacy and lifelong learning (Akparobore 2011; Anasi 2010; Ashraf 2018), preserving local and Indigenous knowledge and culture (Alabi et al. 2018), providing health and social services (Albright 2007), and much more. Agbo and Ongekweodiri (2014) have gone so far as to describe libraries as potential “engines of national development” to underscore the powerful and active role that these institutions might play.

Many of these same papers, however, emphasize that this role for libraries is, too often, an unrealized potential (Moahi 2019). While, in theory, libraries are well-positioned to support locally-driven development, in practice they are not always able to carry out effective development partnerships with their communities, national governments, or international organizations. In fact, in many instances libraries are overlooked as development partners altogether (Fellows et al. 2012). Many librarians argue that this is often the result of a perception problem - libraries are not framing their own work in terms of development, and governments and development organizations therefore are not seeing the potential value in the partnership. As a result, libraries are not getting the support that they need in order to effectively implement services that will advance local development (Ashraf 2018; Bradley 2016; Moahi 2019). Complicating matters further, the colonial histories of many African library systems can produce perception problems amongst the public, leading some to feel that they are inaccessible to lower class members of society and linking them to negative aspects of top-down development (Moahi 2019). This can prevent libraries from effectively providing development-oriented services to the community, and also from being effective partners able to give voice to their community in broader discussions about development. There is great need for research...
that can help libraries to address this gap between their potential of libraries as development partners, and this reality.

The Advancing Library Visibility in Africa (ALVA) Project responds to this gap by asking how public libraries can overcome these perception issues and fully demonstrate their value as development partners to their communities, governmental actors, and international development organizations. ALVA has its roots in the work that the Bill & Melinda Gates Foundation’s Global Libraries (GL) initiative carried out with public libraries across the African continent. When this initiative began to wind down, Global Libraries partnered with an advisory group of leaders working in the public library field across Africa to provide guidance on how to ensure that the initiative had a positive legacy. As part of their work, the advisory group developed a vision of a successful public library field in Africa. It states, in part:

Libraries have become central lifelong partners to the development of communities and the continent of Africa. There is a critical mass of innovative, effective and sustainable libraries, led by well-trained, knowledgeable and motivated professionals. They have brought down the walls of the old “analogue style” libraries, brought in new user-friendly designs, and have become the go-to persons for information, knowledge and lifelong learning. (African Public Library Advisory Group unk.)

ALVA is a collaborative effort between African Library and Information Associations and Institutions (AfLIA) and the Technology & Social Change Group (TASCHA) at the University of Washington, conceptualized in 2016 to be one part of the support libraries need to achieve this vision. Broadly, the project is designing methods, tools, and resources for public and community libraries, to enable them to collect meaningful data about how they are contributing to development. Specific objectives include:

- Supporting AfLIA and the African library sector with data to develop programs and services based on local needs, build partnerships, and better advocate for libraries;
- Building an institutional and technical infrastructure for ongoing data collection and use;
- Making libraries and their services visible, so that community members can find relevant services;
- Enabling the integration of library data with other data sources; and
- Building a culture of data

Achieving these objectives will directly support the efforts of all types of libraries seeking to integrate themselves into the development ecosystem, and more broadly advance understandings of the role of the library field in achieving Sustainable Development Goals (SDGs). It will also support integrating library data into the broader open data ecosystem by ensuring that data collected is structured in a way that facilitates sharing and use by other organizations. This is a long-term and highly collaborative effort, and this paper will share the project’s initial thinking with stakeholders. The remainder of the talk describes the activities carried out to date, as well as planned activities for
the future of the project.

**Current Project Workstreams - Library Sites and Development Stories**

1. **Library Sites**

Current project activities are focused on two concurrent workstreams. The first workstream, library sites, focuses on collecting physical location and organizational information for public and community libraries. The approach in the library sites workstream is to be iterative and incorporate learnings from each attempt into the next phase. The data collection tools and methods are also ones that can be used to support other types of libraries beyond public and community libraries, but the initial efforts and support are focused on collection of the information among the public and community libraries. The focus on public and community libraries stems from the funder of the grant and their focus on building the public library field through their projects. The project team is aware that other types of libraries have needs and uses for data and is working to design the processes and platforms to be adaptable to these needs while prioritizing the needs of public and community libraries.

Prior to beginning any data collection the project team engaged in a variety of activities to increase their understanding of the current state of the library field across the African continent, of data collection and use activities that are already underway, and of potential types of data that could be collected that would be useful to the library field. This engagement with the field took a variety of forms, including presentations at conferences; informal discussions; desk research; project planning meetings; formal stakeholder meetings; and small-scale surveys.

One of the first activities was a presentation about ALVA at the 4th Africa Library Summit and 2nd AfLIA Conference in Yaounde, Cameroon in May 2017. The project team presented a short overview of the project and then engaged in a discussion with participants after the presentation. Additionally, a survey was released to conference attendees from all types of libraries to solicit information about the types of information currently collected in their library to increase understanding of current data collection practices. Findings from the 71 respondents highlighted that most libraries collect data about usage, services, and collections and consider using data from these operational areas important across library types. Public library staff who responded to the survey did rank collecting finance data as being the most challenging area in which to collect data.

This initial small-scale effort at gathering information from the library field demonstrated to the project team that additional concerted efforts were needed to understand the landscape in which we were attempting to gather data. The project team held a planning meeting in June 2017 and identified specific informational needs for the project work, including information about the current structure and governance of public and community libraries and what types of data currently existed for library sites and performance metrics. Desk research was performed by the project team and other parties to
fill in knowledge gaps and begin to inform a possible project plan. Publicly available, current, and reliable information about all types of libraries was difficult to find, but especially when it came to public and community libraries. Only one country made geographical coordinate information available for their public libraries out of the 30 countries on which research was performed. Similarly only a limited number of performance metrics were described as being collected by various public library services with none found to publish them on a regular basis in a way that can be accessed by the project team on their websites. This research informed the development of approaches when it came to engaging with public library services in various countries, increased focus on ensuring that data collected is available publicly, and served as initial network building efforts as information was shared and reviewed by in-country staff.

The project team met again in October 2017 as the desk research phase was nearing its completion and began planning the first attempt at gathering location and library services information. An important output of this meeting was clarification about the priority of the different types of data that would be focused on in the initial data collection effort. The project team determined that the physical location and organizational information was the highest priority data to collect first as it was lacking in almost all countries; could serve as the basis for future outreach for additional data collection efforts; and also was the “base layer” of information needed to connect to other datasets and answering preliminary questions about library capacity in relation to development partners. Before implementing this decision, the project team undertook another engagement with the field to gather input from stakeholder groups at a meeting in Accra, Ghana in March 2018.

The Accra meeting involved 24 stakeholders from 18 different African countries from multiple regions who came together to learn about the ALVA project; share feedback on the information gathered about their country’s library services by the project team; engage in exercises to assist the project team in better understanding the library environment and context to design methodologies and implementation strategies for potential pilot activities; and to help align the ALVA project with their in-country efforts by sharing information about any relevant projects or potential partners. Key takeaways from this engagement included that many countries face similar challenges around data collection; that there is a desire for focused data collection that can be used to support decision-making; and that it is valuable to provide forums for participants to share these challenges with each other and identify possible solutions. From this meeting the project team moved forward with beginning to investigate a platform for gathering library sites information, including location, organizational information, and services provided by the library.

The pilot test activity was undertaken in the latter part of 2018 with a group of approximately 120 participants in 20 countries representing all regions. The aim of this test was to ascertain whether the platform chosen would be effective at obtaining accurate location data through automated means through web browser software and to test understanding of terminology used to describe library service and program offerings. Responses were received from 28 unique library sites across 11 countries. In addition to soliciting responses for the library sites information, we also asked
respondents to complete a follow-up survey about the experience of using the data collection platform. The responses to the follow-up survey were informative for the project team to understand what worked and where challenges existed with the data collection platform or other aspects of the activity. Respondents to the questions on the library services terminology used reported no confusion over the intent of the questions or the terminology used. Of concern to the project team was that several respondents reported trouble with utilizing the auto-location function of the data collection platform. In addition, when attempting to verify that the locations reported through the data collection platform were correct, the project team found many instances where the location selected by respondents did not match up with other sources. The project team manually adjusted the location through the system after reviewing other information sources and consulting with the original submitter of the data. When considering the potential of trying to scale this solution to multiple countries and potentially thousands of locations, we realized that we would need a different system and approach to collecting the information. The project team decided to limit the next attempt solely to collecting location data in hopes of improving the user experience when determining location thus leading to improved accuracy of the reported locations and to provide additional support to an in-country representative.

This in-country representative, or “champion” would also support the project objective to develop a data culture within the library field while improving the accuracy and breadth of the data collected. These in-country representatives can serve as auxiliary liaisons to local library staff as a trusted partner in communicating about the project, assisting with location reporting and assisting in verifying the locations, and also to provide feedback to the project team to improve the process. Each in-country representative receives a briefing on the project, its aims, and additional training is provided on the library sites platform. In addition, AfLIA has a staff person assigned as a liaison to the in-country representatives to answer questions at weekly check-ins and to provide additional feedback on the process to the team based in the United States where the platform is hosted.

Beginning in late January 2019, the project team had solicited assistance from three library field representatives in the countries of Botswana, Ghana, and Kenya. Preliminary results from these engagements are just beginning to emerge as this paper is being composed. However, from the perspective of monitoring and evaluation, it has been realized that the success of this library sites workstream hinges significantly on some direct and indirect characteristics of the in-country representative including affiliation to the national or public library system, level of influence within the existing public library system or national library association and the ability of country leads to effectively train other public and community librarians on how to report on locations of their libraries. On the other hand, knowledge about and access to existing digital networks and other library staff communication networks, especially for public and community librarians, have proved an effective strategy in communicating about the project and reaching a wider network of librarians for training and data collection purposes. Plans for the upcoming quarters involve expanded outreach to an additional 25 countries by April 2019. Once the collection and verification processes have been
scaled, it will be opened up to all potential participants. Additionally, as the development stories workstream moves forward, input from that workstream will be utilized to plan data collection beyond the library sites information collected to date.

2. Development Stories

The second workstream focuses more explicitly on what types of data libraries can be collecting in order to better demonstrate their value as development partners. What data should libraries be collecting about themselves, so that they can think more strategically about their role (or potential role) in development? What data can they collect about their services or their communities, to better give voice to the local needs of the community members that they support? And, how can they weave these data into a persuasive story so that they are more visible to other development partners, ranging from national governments to international organizations? In answering these questions, the objectives of this workstream are to identify current gaps in library data collection practices, and to develop data collection methods and tools that can help libraries to communicate about the development impact they have on their communities. To accomplish these objectives, the workstream will carry out three phases of research. While this work is still being planned, the next few paragraphs give a broad outline of the approach.

The first phase of this workstream, which will be carried out in Summer 2019, will ask key development organizations what types of information they would require in order to consider libraries as key development partners. We will begin by identifying development organizations that are active across targeted countries in sub-Saharan Africa. These will be a mix of international and national organizations whose work covers a wide range of SDGs. The researchers will identify practitioners within these organizations to participate in the research. These will include both participants stationed inside African countries and participants that are overseeing development projects from a location outside of the continent. These participants will be interviewed, with a focus on three sets of questions. First, they will be asked about their previous interactions with libraries, with a focus on any collaborations they have entered with libraries to carry out development projects. Second, they will be asked about their general perception of libraries as potential partners for carrying out development work. Participants will also be asked why they have these perceptions, in order to help identify any causes of misperceptions of the actual capacity of libraries to act as capable partners. Third, they will be asked what types of information they would need in order to choose a specific library as a local partner for a project. These questions will focus on the types of data or metrics, such as data on the social impact of services, that development organizations consider important when evaluating potential partners. These interviews will provide broad insights into the types of data that libraries should begin collecting about themselves, as well as strategies they can use to successfully engage with development organizations.

The second phase of the workstream, which will be carried out in Winter 2019, will then shift focus to the current data collection practices and capacities of libraries. This work will focus on libraries in
3-4 specific countries, which will be selected so that they represent different national library models, levels of development activity, geographic regions of the continent, and socio-cultural context. The researchers will then identify libraries within those countries to participate in the project, and will invite contacts from those libraries to participate in the project. This stage will rely on library contact information collected during the location workstream of ALVA. These library participants will then be interviewed. A first set of interview questions will focus on the library’s experiences with development work. Questions will ask whether the library has formally taken part in development efforts, whether they provide services that they believe contribute directly or indirectly to development in their community, and what level of interest and capacity they have for engaging in future development efforts. A second set of questions will ask about data collection practices within the library. Participants will be asked about what data (if any) they currently collect on the social impact of their services, how they determine what types of data to collect, how they use the data that they currently collect, and their perceptions of their capacity to collect new types of data. The objective of this phase of the project will be to identify gaps between the types of data that libraries are currently collecting, and the types of data that development organizations would like to see.

Finally, the third phase of the workstream, which will begin in early 2020, will develop data collection methods and practices to overcome the data gaps identified in the first two phases. Because this work will be primarily shaped by information shared by librarians and development practitioners during interviews, it is difficult to predict exactly what form this phase will take. Methods ranging from the development of traditional patron surveys to the use of digital technologies to produce multimedia stories about the social impact of libraries could be explored. This will be a highly iterative process in which potential data methods will be developed, shared with library partners for feedback, and then adjusted to better meet their needs. The goal will be to produce solutions that libraries can implement locally in order to produce data that they can use to tell a strong story about their role in development.

Results of this workstream will be important for public libraries, development organizations, and the broader library sector. Libraries will be provided with tools and data that will help them think more strategically about how they can engage with the development sector to further their own mission. The research will also give them insights into the types of stories development agencies want to hear about libraries, and how to tell those stories from the context of their own communities. This will enable them to initiate conversations about the role of libraries in development, and to push for new policies and resources to support their work. Development organizations, in turn, will come away with a powerful new set of partners. Because public libraries are highly accessible, spread throughout the world, and embedded within the social infrastructure of communities, they make an ideal local partner for the implementation of many development projects. This relationship will benefit the libraries, development organizations, and, more importantly, the communities that they serve. Finally, this research will help to inform the library field about the evolving and future roles of libraries in the 21st century. It will produce data and methods for helping the field describe how libraries are expanding their services and mission to meet the new needs of their communities.
**Future Plans**

The following examples for future work of the project have arisen out of preliminary conversations with stakeholders throughout the library field, including public and community library staff, library association leadership, national library staff, and among the project team staff. As with the early phases of the project, we expect these potential ideas may shift in scope, priority, and focus as based on learnings from the ongoing work processes and continued interactions with the library field and with other stakeholders.

A first step in demonstrating the value of the data collected through the library sites workstream would be to combine that dataset with other demographic datasets available at municipal, state, or national level to demonstrate potential of the library as a partner in development activities. Geospatial analysis techniques allow for the combination of library location data with other datasets in order to answer questions about, for instance, the types of populations that libraries serve, temporal changes in the economics of surrounding communities, or gender inequities in which libraries might intervene through the development of new services. Emerging methods for estimating population levels, infrastructure, and more make this option even more powerful, since they enable analysis over areas that are traditionally very data-poor. Once we have obtained accurate location information for libraries in a country, we can begin to leverage that information in new ways to connect libraries to development priorities. The location dataset will be available for access by the public and can be utilized by any partner or organization within the library field to use the data to fulfill their specific need. We will look to create a case study utilizing some of the most readily available demographic or economic data to demonstrate how this could be applied broadly in as many countries as there is existing data.

Ongoing efforts are also expected in the objective of building a data culture within the library field. We expect that this will be done through involvement and training of additional library staff in the later data collection efforts. We also will look for opportunities to collaborate with AfLIA and other partners, such as national libraries, to provide opportunities at their events to convene library staff who are interested in learning additional data skills or exploring the data that has been collected in their country. Additional opportunities also exist for opportunities for library field representatives to be involved in dialogues with potential development partners to increase understanding of the potential of libraries as partners and the array of services and programs that libraries do and can provide to their communities.

Finally, additional work will be done on an ongoing basis to build out the technical infrastructure for data collection for AfLIA. This infrastructure will be leveraged in their efforts to assist other associations and partners in gathering and presenting data on behalf of libraries over the entire continent. Initial efforts in this area have already begun with a student team from the University of Washington who are working with the project team to define requirements, desired features, and use cases for a data collection platform that can be sustained on an ongoing basis after the life of the
project and the grant funding has expired. This team is composed of 4 graduate students who must complete a project as part of their degree requirements. The team has extensive experience in software development, product development, and user experience and are applying their real world experience to this project with a specific focus on ensuring a plan for developing a sustainable platform that supports the project objectives.

Conclusion

In conclusion, ALVA recognizes that libraries have a unique opportunity and ability to support communities in the pursuit of SDGs, but that they are often not able to live up to their full potential in this regard. This project asks how public libraries can better demonstrate, and live up to, their potential value as development partners to their communities, governmental actors, and international development organizations. As a collaborative effort between AfLIA and the University of Washington, ALVA strives to draw on both the insights of the African library sector and the resources of academic institutions. In this way the project will develop cutting edge methods and platforms that respond directly to the needs and desires of librarians doing development work.

Current project activities have been framed by extensive desk research, presentations at library conferences, and multiple stakeholder meetings. From this initial work, the project identified two initial workstreams - library sites and development stories. The first workstream, which is the most developed at this time, has developed a platform and method for collecting physical location data for public and community libraries across the African continent. This workstream has the objective of making libraries more visible by placing them directly on a map that is free and openly available to everyone. The second workstream shifts focus to identifying what other types of data libraries can and should be collecting to better demonstrate their value as development partners. Interviews with both international development agencies and librarians will enable project researchers to formulate methods that libraries can use to tell a stronger story about their role in development.

This ongoing work has been designed provide a solid foundation for future engagement with the library sector. Future plans include geospatial analysis based on the integration of library location data with other datasets; the training of library staff on data collection efforts; the creation of opportunities for librarians and development practitioners to enter into more dialogue with one another; and the development of AfLIA's technical infrastructure. Ultimately, though, this project is designed to be collaborative and to respond to the needs and desires of the librarians that it seeks to serve. This is why venues like the 3rd AfLIA Conference & 5th African Library Summit are so important for the project, since they offer opportunities for feedback, dialogue, and the creation of new partnerships.

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References


