Libdot: A Collective Intelligence Platform for Libraries[1]

Abstract: Strategic decision-making requires due diligence, consensus building, and communication with trusted peers. Such information gathering and knowledge exchange relies on inadequate tools such as conference presentations, closed intranets and email listservs. Committees and consortia collaborate to accomplish strategic decision-making, but human limitation creates double work, unfair bias, and missed opportunities. Moreover, the increasingly complex information environment exposes such antiquated infrastructure to new security risks. This green paper proposes Libdot: a proprietary method for describing and analyzing administrative objects in the library ecosystem such as organizations, their people and expenditures. This technology would enable individuals and organizations to leverage the community's collective intelligence for strategic decision-making. We compare Libdot to an idealized consortium to illustrate the potential of collaboration before and after. The paper explains how objects are classified and organized on Libdot, along with initial use cases for individuals and organizations using Libdot. We also address questions surfaced during Libdot Labs - a private research & development initiative.

1 Introduction

The 21st century library operating environment poses many new challenges for organizations to navigate. Literature describing organizational budget cuts and publisher price gouging is large and growing. Shifts in the library's role within its broader institutional context are also underway, fueled by the organization's increasing dependence on technology and the correlated user expectations. And the question "Who is best fit to perform this new work?" is the thesis of a growing amount of research citing the rapidly shifting talent landscape in libraries, posing deep questions regarding both the identity and the long-term viability of the profession. This culmination of macrotrends warrants a thorough audit of the infrastructure the information profession relies on to make strategic decisions.

Rather than call for a complete reset on librarianship, we propose an upgrade to the ecosystem's existing infrastructure for communications, analysis and decision-making as an investment towards future viability. In this green paper, we describe a new technological framework for digitally mapping organizations and their relationships in the library ecosystem to enhance communication, collaboration, and strategic decision-making. This technology, called Libdot,

[1] "Green Paper", as defined by Oxford English Dictionary, is a preliminary report of proposals published to stimulate discussion, as opposed to a white paper's function of announcing decisions.

helps information professionals and their organizations quickly make sense of the vast world of library organizational data.

We mention the “ecosystem”, by which we are referring to the diverse set of organizations, individuals and collaborative partnerships overlaying them, working to advance knowledge management. This includes various types of libraries such as academic, public, and special libraries, commercial vendors that service them, along with the loosely and tightly affiliated working groups, consortia, and associations responsible for collaborative decision-making.

Although much research and development in the area of collaboration across the ecosystem has been done, it has primarily fallen into two categories. The first category is collaborative innovations created to enhance the end user experience, such as interlibrary loan (ILL). The other category is collaborative innovation that may enhance staff experience, but rely on limited forms of information exchange. This includes email listservs and shared invoicing. Our research and development is focused on exploring a third category of collaborative innovation - one designed for librarians and their teams leveraging new data models and modern technologies to accomplish strategic goals, such as shared metadata management or shared collection development.

Our contribution to this third category of collaboration is focused less on improving capabilities of a particular workflow itself, and more on strengthening the people performing the workflow. We envision a new mechanism and process for sharing expertise, advice, and other information that enables staff to do more, faster, and with higher accuracy using a graph data model. Graphs differ from relational databases due to their emphasis on relationships between nodes (as opposed to the nodes themselves) and the ability to support multiple hierarchies (as opposed to forcing data to fit into a single parent child hierarchy).[2] To illustrate, consider talent acquisition: a hiring manager will want to query people and their relationships to other nodes such as skills they have acquired or products they have used. But in the case of market research, a purchaser will want to query products and their relationships to organizations and other people. Graph databases allow us to more accurately reflect the true diversity of these relationships by not marrying to one type of object as a primary object in our database.

1.1 The Perfect Consortium

The case for Libdot can best be made through illustrating the perfect consortium. The perfect consortium would consist of a membership that is proportionally resourced, each member paying increasing dues on time annually. This consortium would have diversity of opinion, background, size and geography. Members have unanimously selected the consortium’s leadership, comprised of individuals who are all well-compensated and fulfilled in their work. Members will also have achieved the perfect balance of in-person and virtual communication, and grows its membership each year at a rate that does not overburden its infrastructure. Lastly,

[2] https://neo4j.com/developer/graph-db-vs-rdbms/

the year-over-year spending power of the consortium has increased to the point where all vendor contracts have maximum discounting.

The ideal consortium will have members in various stages of executing their strategic plan, and as a result will need expertise and advice from organizations outside of their consortium. But how can one identify the right people to speak with who have the right experience, at the right time? Also, the world of products and services is vast and growing month by month. The likelihood of consortial members having experience to share about all products and services remains low. When new talent needs arise within the consortium, relying on referrals from other member organizations will not produce the talent pool required to conduct a sufficient search. Several additional outcomes remain outside of the realm of possibility for even the ideal consortium, resulting in most consortia failing to meet the needs of all of its members. Many organizations maintain memberships with multiple, concurrent consortia for this reason. But maintaining multiple memberships is not practical for the average organization. As a result, we propose a more sustainable model for interlibrary communication, collaboration and decision-making.

1.2 Libdots

To increase the efficiency and quality of due diligence for information professionals and their teams, we propose Libdot - a proprietary graph database designed to organize every administrative object in the library ecosystem. Each “dot” (or node) on the graph functions as a container for individuals and organizations to store information intended for external communication such as strategic plans, statistics or product experiences. Users can establish connections with other users or organizations via container to exchange specific pieces of data for set durations of time. This includes both one-to-one and many-to-many connections: person to person, person to organization, organization to person, or organization to organization. While the Web has successfully identified many of the objects in the library ecosystem, it lacks a shared descriptive framework for administrative objects that is unique to the niche of knowledge management. The Library Graph deploys a from-scratch taxonomy to describe each container, powering a suite of applications in storage, search, browsing and bookmarking.

Section 2 outlines how all administrative objects across the library ecosystem have Libdots, and introduces classifications of different types of Libdots. Section 3 describes how relationships are established on the graph, and how users can query the graph for both objects and complex relationships among objects. Section 4 establishes initial use cases for the library graph. Unanswered questions that have been surfaced during research and development are discussed in section 5.

2. A Libdot For Every Object In the Ecosystem

Strategic decisions often touch multiple administrative objects in the library ecosystem. Take for example selecting a new library services platform. A person within an organization is tasked

with evaluating 3 library service platforms (LSP), each created by 3 separate vendors. Step 1 of this decision-making process already involves 8 objects on the graph (1 person, 1 organization, 3 products, 3 vendors). Next, the person is interested in organizations that share a lot in common with their organization and have experience using each of the LSPs. For the 3 products, there are 5, 10, and 15 different organizations respectively, bringing the total number of connected objects on the graph to 28. When considering the number of people at the 20 different organizations who have experience using the product, one can grasp how the number of relationships can expand very quickly. Libdot's graph database is designed to dynamically surface such relationships to gain insights about the community that traditionally used methods such as human networking, market research, RFPs and the like are not capable of achieving.

2.1 Skills

Effectively mapping relationships across an ecosystem requires a common descriptive denominator. Since Libdot manages administrative objects and their relationships, we propose skills - considering that people in the library ecosystem have skills, organizations need skills, products require skills, and so on. A few challenges are inherent to this approach.

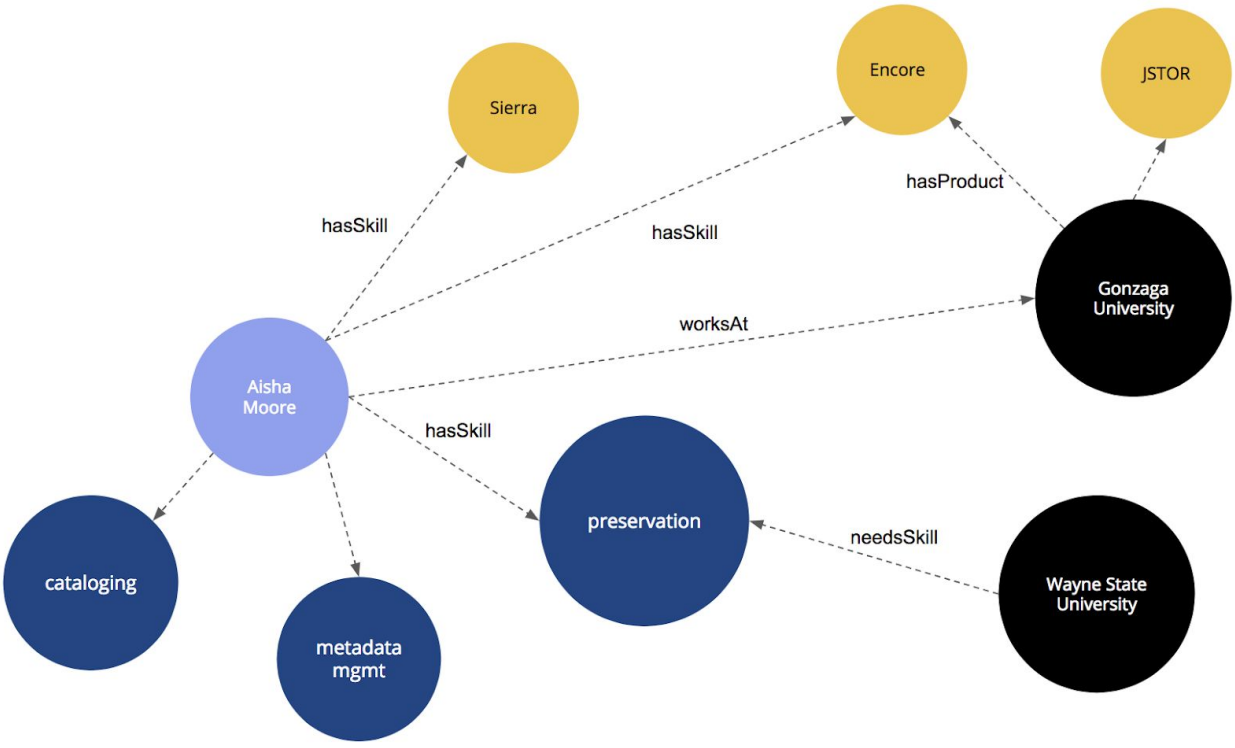

Figure 1. Visual of libdot Data Model.

First, many skills among information professionals are unique to the profession, making authoritative, current taxonomies for library skills rare to come by. Skills recognized by widely-recognized databases such as the U.S. Department of Labor Statistics, IPEDS and LinkedIn do not encompass the depth of skills unique to the information profession. Adopting

any framework for library organizational and professional development that does not reflect the nuanced methods and techniques of knowledge management will unwittingly contribute towards the dissolvement of the profession.

Second, many of the library-specific lists that exist are either inconsistent, out of date, and most important, not machine-readable. For example, the American Library Association (ALA) last published "Core Competencies of Librarianship" in 2009[3] - a list of proclamations describing the areas of responsibility within librarianship. While the North American Serials Interest Group (NASIG), sister group to the United Kingdom Serials Group (UKSG), maintains competencies for three groups of information professionals that are more up to date[4], they are not machine-readable. ALA's competencies address the broad field of librarianship. NASIG's competencies are targeted to academic librarians. The Special Library Association (SLA) also publishes guidelines for their members called "Competencies for Information Professionals."[5] Even other competency frameworks for knowledge management may exist, suggesting there is an opportunity for consolidation and normalization for the community-at-large.

Last, apart from any given list, the definitive set of skills required to manage the library of the future are still up for debate. We believe that developing an ecosystem with 21st century library skill development at the center will make meaningful contributions to this ongoing dialogue.

2.2 Organizations

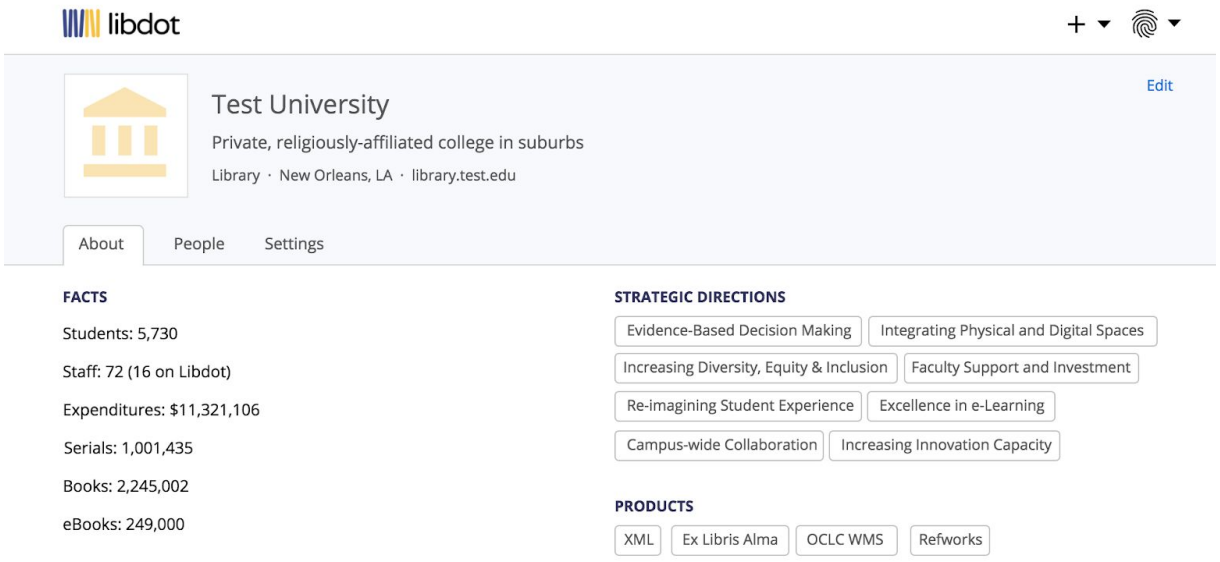

Figure 2. An organization Libdot.

3 http://www.ala.org/educationcareers/sites/ala.org.educationcareers/files/content/careers/corecomp/corecompetences/finalcorecompstat09.pdf

4 http://www.nasig.org/site_page.cfm?pk_association_webpage_menu=310&pk_association_webpage=1225

5 https://www.sla.org/about-sla/competencies/

Organizations have the following administrative objects that Libdot can describe and use to surface connections: people, products and services, skills, strategic directions, memberships, opportunities and resources. These objects are leveraged for libraries to make more informed decisions when managing talent through the recruitment, retention, and succession planning process. Apart from talent management processes, the Libdot graph is also designed to deliver purchasing intelligence across organizations who are evaluating the same product.

An organization is its own entity on the graph, but can also establish connections with different entities in order to reflect trust relationships it has within the ecosystem. Examples of this are consortial partnerships, job applicants and vendor partnerships. This model strikes a balance between the rigid privacy of intranets (requires institutional credentials) and closed listservs (must be invited and approved, and once approved, receives all communication) and public websites that offer no control over audiences, thereby prohibiting certain information from being shared. Organizations being represented on the graph not only offer the right level of control of data, who has access, and for how long, they also deliver the added benefit of the collective intelligence from the community at the point of each decision juncture.

2.3 People

The original application of the graph's skills metadata was to describe people Libdots. This stems from an earlier iteration of the graph called "Libmatch" - which was a concept for an algorithm designed to match information professionals with libraries. But early conversations with the community quickly proved that people have more use cases for the library graph beyond finding their next employment opportunity.

By signing up, people own the data in their Libdot. Each user decides which Libdots to establish trust relationships with, and for how long. This acknowledges the dynamic nature of relationships in our community, where people are not employed at the same libraries forever, nor do libraries have contracts with the same vendors forever, and the information that a person wants to share with one Libdot may vary to the next.

The starting use case of Libdot for individuals is to be a smart source of record for professional credentials. The more data a person uses to describe their Libdot, the more types of transactions can be managed. For example, by uploading hiring documents once, organizations on Libdot would be able to be grant access to those documents for a set period of time. Adding professional interests would enable Libdot to suggest training opportunities in order to turn interests into skills. Linking a bank account would enable individuals to receive payments from consulting clients. However, the value of Libdot only begins with the individual. The quality of data is not solely dependent on how much each individual adds to their Libdot - their interactions with the system itself and leveraging the information within generates still richer data for themselves and others.

Unlike a social network where the experience is designed for users to stay up to date with people and organizations they care about via an advertising-based news feed, Libdot focuses on facilitating moments of transaction between individuals and those playing a role in advancing their career, both known and unknown. The social network comparison is discussed in more detail later in the paper. But the experience is being designed more after marketplaces in the shared economy where libraries and individuals can rent out their talent and expertise to other peers.

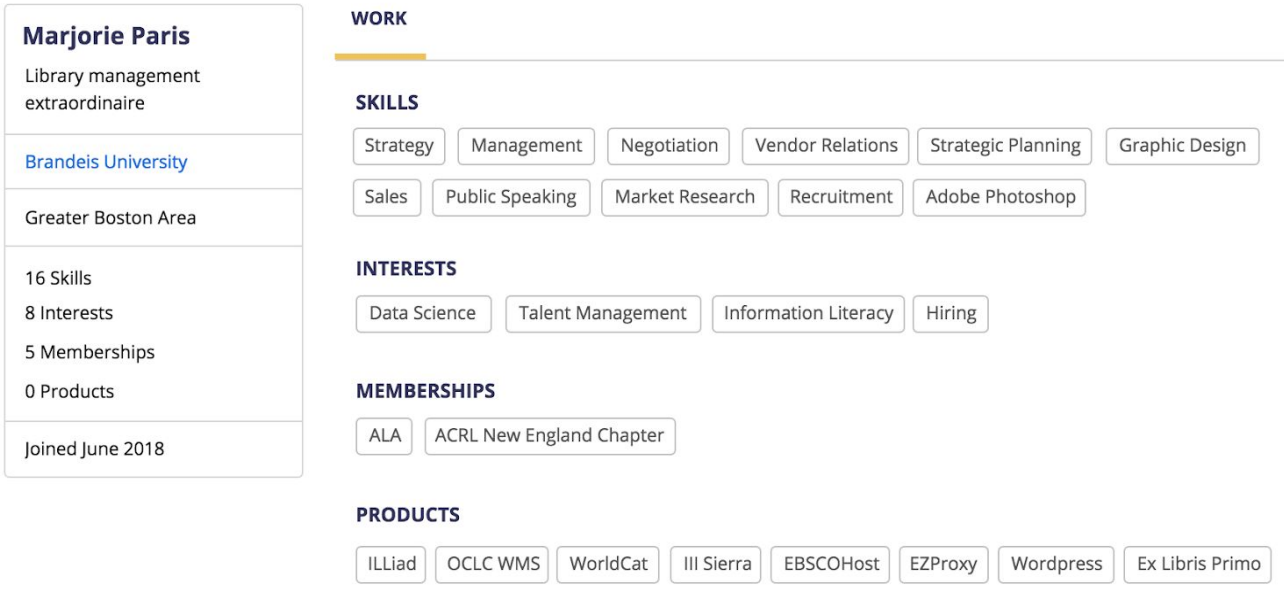

Figure 3. A user Libdot.

2.4 Products and Services

Another way to understand someone's value to an organization is to understand the products and services with which they have experience. To capture this, products are a third nodeType[6] on the graph. Users can list products with which they have experience in their work, and denote whether they are an administrator, user, or selector for the product. The number of years of experience with the product is also captured to help organizations measure depth of expertise. Currently only software products are being tested, but that could expand to content products, hardware, consulting services and more in the future.

2.5 Opportunities

The library ecosystem relies on a variety of vehicles to connect people and organizations to events such as job openings, calls for proposals, on-site trainings and more. Our graph recognizes these as their own nodeType called "opportunities". Opportunities can be created by a user on behalf of an organization in order to connect with individuals who who have conveyed

[6] https://neo4j.com/blog/nodes-are-people-too/

certain skills, interests, and product experiences. Conference organizers can use Opportunities to promote sessions or events. Employers can create Opportunities for job openings or consulting projects. Or individuals can create Opportunities to recruit mentors or people to collaborate on grants or research. When creating an Opportunity, users can select job, project, partnership or event. Each opportunity can either be paid or unpaid, have a cost associated with it, or be free.

2.6 Resources

In between conferences and trainings on the calendar are more discrete moments of learning that are historically more elusive to measure and align with strategic goals. Some organizations have created libguides to accommodate this more self-paced form of professional development. Libdot assigns a different nodeType called “resources” for users to upload papers, presentations, videos, and other types of links that can be used within an organizational strategy to reskill or upskill staff. Users can share these lists with the community, and recommend ones they found beneficial.

3. Collective Intelligence

On the surface, creating a Libdot as an individual or on behalf of organization feels like a traditional database that simply stores information and displays it in a visual way. But Libdot separates itself through its mechanism for producing new information that can be leveraged by the community in strategic ways. Remember our idealized consortium, with the most excellent communication and optimistic budgetary outlook, there are still inevitably missed connections and opportunities. By recreating the consortial relationships on Libdot, insights and opportunities are automatically surfaced, as Libdot is enhancing the intellectual output of groups with machines. As a result, the true value of Libdot is derived from the community.

3.1 Creating Libdots

A barrier to entry for many marketplaces has been the chore of data entry and management. The top priority of our research & development is to make the Libdot creation process the most efficient possible. While Libdot’s early user experience requires moderate data entry, we have made demonstrable strides in data standardization and editable interfaces. A concurrent goal is to explore automation tools for data extraction and analysis to lower the barrier to entry to the platform. To date, we have identified the following resources within organizations as candidates for automation workflows: online directories, org charts, strategic plans and Libguides. Leveraging these resources enables us to recycle and reuse existing data libraries have invested in.

3.2 Establishing Relationships and Connections

Exploring the differences between relationships and connections on the graph reveals Libdot’s model for building collective intelligence. As data enters the graph, relationships are

automatically established: Organizations with their staff; information professionals and their skills, interests, and product experience; products with their users and customers. These passive relationships do not require the explicit permission of the other party, and as a result, do not give the creator of the Libdot permission to access any of the other Libdot's private data. Affiliating a libdot with another, such as Libby T. works at Wayne State University, or Brandeis University uses Ex Libris Alma, simply establishes the relationship on the graph. This relationship mapping is valuable when trying to glean basic information such as what libraries use a certain product.

Now, consider Libby T., who works at Wayne State, is evaluating Ex Libris Alma and wants to establish a connection with Brandeis University to learn more about their experience, which is stored inside of their container. This would be considered a connection. Unlike affiliations, the connection Libby is establishes with Brandeis are not visible to the public, and only last for a mutually agreed upon duration. As illustrated in figure 3 below, relationships on Libdot are passive, implicit, and publicly visible, whereas connections are active, explicit, and not publicly visible.

	Creation	**Duration**	**Visibility**
Relationships	Passive	Permanent	Public
Connections	Active	Indefinite or Fixed	Private

Figure 4. A comparison between relationships and connections.

3.3 Surfacing Relationships

While a user can only view their own connections, several options exist on how to query relationships across the community. Libdot is working with the community to understand the user experiences that would be most conducive to decision support. Upon launch, we will initially support unstructured querying via search, along with basic and advanced browsing functionality, where users can identify the types of Libdots that meet certain criteria, and view subsets of data and export in standard ways such as .csv, .xml, and eventually via API. But other methods, including developing algorithms to provide recommendations, depend on the use case in question.

4. Use Cases

Numerous opportunities exist for Libdot to aid in strategic decision making within academic libraries. The primary focus however is to strengthen organizations during a talent war with private industry, changing roles and responsibilities, shifting user expectations, and uncertain economic environments. The following use cases have been identified with university leadership as paramount to address the aforementioned challenges.

4.1 Talent Management

Ensuring teams have the talent required to meet the dynamic expectations of stakeholders is a challenge. Libdot addresses this by surfacing the skills, interests, and product experience an organization has on staff, and how these traits map to its strategic plan. By creating a Libdot for an organization, teams will be able to assess in-house talent against their strategic directions. This equips organizations to develop a strategy on acquiring new skills. Libdot is designing workflows that leverage the graph to support the following ways to acquire new skills, whether for succession planning, or other forms of organizational development.

Reskilling. *"Are there any members of our current team who have interests in areas we need to increase capacity in, and are willing to take on a new role in the organization?"* Libdot recommends Opportunities for staff to grow these key areas, offering a way to increase team capacity and staff retention, while positioning the organization for future success.

Upskilling. *"Are there members of our team who are in a role that will remain within our organization moving forward, but are interested in acquiring new skills that will increase our capacity for future success?"* Libdot highlights these individuals, and prescribes a professional development plan based on the organization's budget and timeline, increasing both capacity and retention.

Contracting. *"After evaluating opportunities to reskill and upskill current team members, there are still some skills we need to acquire that do not yet warrant a full-time position."* Libdot enables organizations to create a project (a type of Opportunity) that outlines the scope of work, the skills and product experience required, along with the duration and budget for the project. Organizations that a library already has established trust relationships with on the platform are able to get first right of refusal to recommend a staff member for the project. For example, an organization could loan a staff member who has specializes in Arabic Cataloging to an organization who needs her expertise. The staff member managing the project could open it up beyond their consortium from the outset, or after a certain date.

Hiring. *"We now have the data and justification we need to launch a search for a full-time position. We're confident it will be someone who is not currently within our organization, nor will it be someone within our network. We need to broaden the talent pool as much as possible to include a diverse range of candidates."* Libdot enables organizations to create a job (a second type of Opportunity) and see the entire population on Libdot who meets the criteria. While we are still developing the methods to notify individuals of a job opportunity, we are currently designing the underlying tools that will enable libraries to do talent pool modeling in order to decide which traits should be required within a job based on the size and diversity of the available pool. Also, different organizations have different regulations on the hiring process. As a result, we are focusing on offering tools that aid in the work leading up to the formal job posting launched.

Mentoring. *"Outside of acquiring new skills, there are members of our organization in earlier stages of their career who need personal coaching and development for which we lack the personnel to offer. How do we find people who share the demographics and shared life experiences in the field to our younger staff, and provide opportunities for them to connect?"* Libdot is able to present near-peer mentors to members of your staff who have a large overlap in background, skills, and interests, but are 3-5 years ahead of them in their careers, enabling hiring managers to incorporate mentorship into a broader retention and staff development strategy.

4.2 Market Research and Benchmarking

When an organization creates a Libdot, information around the products and services used is collected to assess the level and depth of product experience maintained in-house. This data, used primarily for organizational and professional development, can also be used to conduct market research among peer institutions. High-level information such as which organizations use which products can be gleaned through simply queries. For example, finding a library with 20,000 FTE students, 200 staff, and an annual operating budget of $12,000,000 that uses a particular software product would return a list of results. But learning more about that organization's experience with the product, particularly the people administrating, using, or procuring the product, can be accomplished through establishing a formal connection with the organization on Libdot.

4.3 DEI[7] Initiatives

According to a recent Harvard Business Review report, "it is important to encode diversity in a company's DNA at the earliest stages."[8] Our team at Libdot aims to be the change we wish to see. Our belief is that to have true change, an organization must have diversity on its board, among its customer and user base, with its vendors, and among its employees.[9] To this end, we are designing a multi-faceted approach across talent, vendors and collections to make the most substantial impact.

Diversifying staff. When planning for a project or a job, libraries can model a talent pool based on a number of personal and professional attributes in order to determine whether a talent pool is large and diverse enough. If not, a hiring manager can remove a skill or remove the MLIS requirement to increase and diversify the pool further.

Staff inclusion. Hiring new talent to diversify a team without training current staff on inclusion is a missed opportunity to strengthen the culture. A library can create a project on Libdot for inclusion training, and contract with a consultant within their budget to train their team. Organizations who are not in the position to bring a trainer in-house can also assemble an

[7] Acronym for Diversity, Equity & Inclusion
[8] https://hbr.org/2018/07/the-other-diversity-dividend
[9] https://www.forbes.com/sites/dominiquefluker/2018/06/28/bariawilliams/#69a4614a6446

inclusion curriculum comprised of opportunities and resources that are tagged with `Diversity, Equity, and Inclusion`.

Supplier Diversity. Evaluating expenditures for opportunities to support minority-owned businesses is another tangible way to improve diversity and equity, both short and long-term. In the short term, staff members will gain additional opportunities to interact with and gain perspective from underrepresented communities in their area of expertise. Products and services delivered to the organization have a greater potential to be more culturally responsive as well. In the long term investing in minority-owned businesses makes a positive impact on their community, increasing opportunities for economic equality among marginalized people. Libdot describes organizations with minority leadership or ownership, allowing users to identify them and receive recommendations during market research.

Diverse Collections. Organizations with a goal of having more diverse cultures represented in its collection, and broaden the perspectives its patrons receive on various topics, Libdot describes products for this. When doing market research on Libdot, users can see which products are tagged as `Diversity, Equity & Inclusion` and also the organizations who are using it. To learn about the organization's experience with the product, a user can request to connect with the organization's Libdot to read reviews of their experience.

5. Hard Questions

Conducting an R&D initiative inevitably produces certain difficult questions that require further deliberation. For Libdot, hard questions are those that have a strong precedent in the current landscape, but have proven insufficient for the future, requiring further consideration. Gaining a better understanding on such questions impacts certain policy and design decisions with the Libdot technology and organizational structure. One outcome could be the creation of working groups on each of these topics, to ensure diverse perspectives are heard prior to instituting policies.

5.1 Diversity Targets

Are we "diverse" yet? The past decade has been host to many dialogues on diversity, creating a space for initiatives to take root and impact to be measured. But amidst the flurry of conversations on diversity lies an oft overlooked question regarding the end goal: How do we know when we are diverse enough?

Libdot is developing tools for organizations to turn dialogues on diversity, equity and inclusion into an actionable culture. One idea we are currently developing with partner institutions is the idea of a *target representation percentage*. Our philosophy on team diversity is based on representation. In other words, what is required for members of a community to no longer be described as underrepresented? Take for example a partner in the Pacific Northwest, who is

located in an 87% White statistical area, with a 70%+ White student population[10]. A leadership team can acknowledge the need for more diversity among its staff, while also acknowledging that given the demographics of the both the statistical and student population, having a 50% Latinx staff is unrealistic, and arguably unnecessary. There is however a reasonable expectation to diversify staff to an extent where minorities on campus feel represented.

Data to calculate a target representation percentage is easily ascertained: ethnic breakdown of the statistical area, student population and staff population. The question becomes what role should target representation percentage play in Libdot's workflow? Should it be used purely as internal information or should it be visible to others? Should it be used to power suggested candidates for jobs or consulting projects? Should it be used to help benchmark against peer institutions?

5.2 Social Networking

How social should Libdot be? Libdot was created to enable libraries to benefit from the collective knowledge and experience across the community when making strategic decisions. The user experience that supports this goal could take on many shapes, one of which is a social network. Social networks like Facebook and LinkedIn have become the defacto way for "connecting and sharing" with people we know. Since their dawn almost 14 years ago, their benefit in surfacing relationships with individuals and organizations are well documented. However, many lessons have since been learned regarding this model when it comes to the experience we're seeking to create. We were also curious as to why the issues Libdot has set out to solve are still largely unaddressed, despite the ubiquity of both social networks within the library community and academia writ large.

First, social networks are built on the assumption that the people we know are the ones we are interested in knowing and hearing from, or that people who know the people we know (e.g. 2nd degree connections) are the extent of our networks. Facebook goes as far as to prohibit users from seeing people who are beyond the 2nd degree, while LinkedIn enables users to see 3rd degree members and beyond for a fee. Both networks start by connecting to a user's email contacts, which determine the trajectory of the network's growth. This model runs counter to the widely accepted goal of recruiting broad, diverse talent pools.

Second, social networks are by definition, social. Even LinkedIn, which brands itself as a professional network, has modeled its offering around Facebook's, placing the user at the center of the experience, and catering to enterprises and organizations years afterwards. This priority is apparent in the user experience. The value proposition to users is to enhance their lives outside of their current work environment: Facebook with personal updates from friends and family, LinkedIn with professional updates from advertisers and "influencers." Advertising-based

[10] https://www.gonzaga.edu/undergraduate-admission/why-gonzaga/explore-gu/faqs

revenue models incentivize businesses to get users to spend as much time "in-app," creating a disincentive to design user experiences that strengthen their employers and their organizations.

Libdot is designing the future of work in libraries. While some social features like messaging or feeds may be adopted in the future, we are less interested in creating yet another social network, and more interested in rethinking and supporting the way organizations and their staff connect to make strategic decisions in their work.

5.3 Proprietary Information

What can't we discuss on Libdot? In an effort to democratize access to information around career opportunities, product experiences, and other information that is typically shared by word of mouth at conferences and on listservs, we have begun to identify certain types of information that can only be shared by certain types of organizations, while not by others. We have also identified third-party information that can only be shared if the third party grants permission. To develop policies to properly govern proprietary information within Libdot, we are seeking institutional partners to work with our legal counsel to determine the parameters of information sharing, both on an organization's behalf, and on an individual's behalf.

5.4 Vendor Roles

Is Libdot a closed community? Many of the strategic decisions that Libdot seeks to strengthen with enterprise intelligence is related to products and services from third party vendors. Since the quality of information exchange among peers is directly impacted based on the the level of trust within the community, our default is to allow users to control what information they choose to share with all users, including vendors. We also assume that at some point, vendors will have the opportunity to create and manage Libdots on behalf of their organization and products. Beyond this, we look forward to working with members of the community to understand whether Libdot has a role in facilitating additional data exchange between vendors and the community.

5.5 Artificial Intelligence (AI)

Is artificial intelligence helpful or harmful? The library community has begun investigations into the role of artificial intelligence and its impact on the organization. But the verdict is still out as to what it will look like. Most of the discussions to date have focused on services that cater to patrons and end users, such as designing algorithms to facilitate pattern matching among large corpuses of research. But very little conversation and literature has been dedicated to the role of AI in the administrative aspects of the organization, namely hiring and purchasing. Libdot is a way off from leveraging AI in our work, but we are keeping an eye on the potential that algorithms can have in helping organizations become smarter, faster and stronger in an environment with increasing demands. To this end, we have begun a series of convenings with experts in the fields of artificial intelligence, talent acquisition, diversity and inclusion, and organizational development to talk through the intersections of these fields as they relate to the

future of work in libraries. Our first convening at the 2018 American Library Association's annual meeting in New Orleans set a precedent for a community-wide dialogue, opened with a virtual welcome from AI ethics researcher Safiya U. Noble PhD, author of Algorithms of Oppression: How Search Engines Reinforce Racism[11], and we look forward to hosting our next convening in the Fall at the 2018 Charleston Conference.

6. Conclusion

The challenges facing the library community are well documented. We now have the tools and models to create smarter organizations, more driven teams, and stronger communities to help navigate the coming years. The opportunity is at our fingertips to direct the requisite energy and investment into applying new technologies to the administrative challenges organizations and individuals face. We are seeking partnerships with forward-thinking leadership teams who understand that the work required to future-proof libraries will not happen without their participation. Organizations who are currently in strategic planning processes, or are rethinking organizational structures, are prime candidates to serve as thought partners during our journey to build the future of work in libraries.

[11] https://nyupress.org/books/9781479837243/