I'm the chair of the committee, not an expert on everything in the document

Methodology for the Scan
- Technology, Staffing and Assessment initially were themes, but the intertwined so closely with everything else we integrated them into each section.

Themes to explore:
- Higher Education
- Library Collections & Acquisition
- Data Research Services
- Discovery Services
- Library Facilities
- Scholarly Communication
- Library Impact on Student Success

I will focus primarily on the implications for libraries related to these themes

Higher Education

- Affordability of a degree

- Competition for research funding

- Impact of technology on higher education
  - Changing the nature of online and in-person education

- Changing demographics – increasing number of non-traditional students

DRM
- Libraries should continue to work with vendors and each other to better manage the sharing and preservation of e-book content.
- Libraries will need to continue to manage a hybrid e- and print monograph world for some time to come, balancing user needs and preferences, space issues, and access.
- Streaming AV has its own set of challenges that are currently in a state of discussion and negotiation between libraries and vendors.

DDA
- Libraries should evaluate their ongoing, established DDA programs carefully and ask for detailed usage statistics to perform such assessments.
- New publisher models of patron-based acquisition such as evidence-based models are still relatively new, and need to be carefully assessed.

Textbooks
- Libraries can play an important role in providing more access to textbook and course-adopted texts (particularly with e-books), but need to take heed of and collaborate with the many internal university players in the textbook and course readings ecosystem.

Collaborative Collections

- There should be a continued review of the collaborative and coordinated management and use of retrospective print collections and how to enhance services associated with these collections and their digital counterparts.

Assessment
- Libraries will need to continue to track and assess the value of collections beyond the traditional boundaries to include new modes of scholarship.
- Libraries will need to engage with researchers on the impact of new modes of scholarship and new ways to measure this impact and its implications for collection development, management, and data curation.

Research Data Services

- Government & Funding Agency Policies
- Data Sharing & Management Practices
- Data Curation Services
- Data Literacy
- Data Management Services

Agency Policies
- The future of research data services of academic libraries will continue to be driven by larger academic factors and government policies, as well as even broader national development priorities and international competition and collaborations.
- Academic libraries need to pull together their human and intelligent resources and collaborate on developing state-of-the-art, cross-institutional digital platforms for disseminating scholarly projects in multiple formats.
- Academic libraries can leverage their expertise and experience in curation, preservation, and data management to support, educate, and facilitate government agencies that now need to make their data and information more publicly usable and accessible.

Data Practices (Research POV)
- Disciplinary and methodology differences influence researchers' data collecting, analyzing, and sharing behaviors and thus require data services librarians to develop a deeper understanding of research processes, in order to provide suitable assistance within each research field.
- Increasing numbers of data management and curation services will be developed based on an evaluation of specific research programs' needs and practices.
- Innovative outreach strategies are needed for academic libraries to market their existing data services to users who are usually unaware of librarians' expertise and the available tools and resources.

Data Curation
- Data curation and preservation will require more collaborative efforts between multiple campuses and institutional units, and academic libraries could be the initiators and coordinators of policy development and program design.
- Customizing features according to specific research communities' needs and implementing reliable measures for data quality review and control will need a further understanding of research processes and deeper engagement with researchers.
- Preparation of the data curation workforce requires both formal library school training and continuing education programs, and the skills and knowledge taught need to be practical and to cover science, engineering, and data management domains.

Data Literacy
- Data information literacy has been recognized as an important component of general information literacy competencies for higher education. Data librarians need to join more actively in dialogues about information literacy, learn from newly developed pedagogical strategies, and contribute based on their special perspectives as well.
- Data librarians or subject librarians who are assigned to, or interested in, data information literacy instruction or data management practices training could benefit from existing collaborative national and regional data services program models and curriculum materials, to customize their own efforts within local contexts.

Data Management Services
- New roles in supporting research—especially research data services—are emerging as new services within academic libraries. These growing opportunities to become further engaged in research processes are inspiring visionary library administrators to reprioritize library functions and even reorganize their libraries' structure to align with these new needs and potential areas of innovation.
- More collaboration among different units of academic libraries will become increasingly common and important in carrying out complicated research support projects, for example, those that involve data discovery, collection, documentation, management, and curation. Innovative on-site professional development opportunities, such as cross-departmental dialogues, observations, and demonstrations, will be valuable in developing new collaborative networks and relationships among librarians from different units.
- Professional development opportunities need to be created for all librarians, which are not limited to support for attending conferences and short, one-time knowledge updates. These also should include providing release time and financial

support for librarians to enroll in continuing education programs and to obtain certificates in new specializations.

Discovery Services

- Shared ILS/RMS
- Collaborations
- User-Driven Research: Linked Data, Data Mining, Analytical Tools

Shared ILS/RMS
- Advances in discovery systems and shared ILS/RMS systems are enabling multiple institutions to provide broad user access to library collections and to provide the back-end infrastructure that supports these partnerships.
- Libraries should continue to consider users expectations and information-seeking behaviors in developing or selecting discovery systems.

Collaborations
- Libraries will continue to address users' needs by providing broad access to collections via portals, exploring the benefits of large-scale collaborations for digitization, and adding service layers that facilitate searching, discovery, and manipulation of the content they find.

User-Driven Research
- Libraries have the opportunity to empower users by providing rich and deep content platforms with tools that facilitate discovery and analysis, which ultimately enables them to make information connections that contribute to the creation of new knowledge.
- In support of non-consumptive scholarly research, libraries, in collaboration with content vendors, should explore options for providing data mining functionality in aggregated databases.

Library Facilities

- New roles, new players
- 3D Services, Makerspaces and Technology Services

New Roles/Players
- As libraries are increasingly required to share their spaces with other campus offices, creativity will be required to envision ways to open up space for these constituencies while still providing the spaces needed for more traditional library services.
- Libraries at institutions where new buildings or major remodeling efforts are not possible will need to consider other ways to build these connections. Options include finding ways to decrease collection footprints in order to accommodate additional offices and spaces for new initiatives/technologies or to partner outside of the library facility.
- Expertise for support of these new dimensions and services will necessitate new roles for staff. Support for services not traditionally provided by the library require new skills such as training and support for increasingly sophisticated technologies: 3-D printers, visualization labs, or multimedia production.

3-D, Makerspaces, Tech Services
- Establishment of technology-related services requires planning for continuous support and infrastructure, including: training for users, availability of staff with the requisite skill sets to support the services, availability of physical facilities with sufficient space and power, ongoing availability of resources to the keep the services up-to-date as well as establishment of appropriate policies and guidelines.
- Additional expertise related to library and instructional technologies, media

production, and other emerging technologies must link with institutional assessment and space planning in order to ensure library facilities meet user expectations into the future.

Scholarly Communication

- Library as Publisher
- Copyright and Fair Use
- Altmetrics

Library as Publisher
- Libraries can support open access scholarship through publishing efforts.
- Libraries can build relationships with campus scholars and other campus units by acting as publishers.

Copyright/Fair Use
- Rights management is a complex landscape in which to maneuver. Librarians can advise on best practices and the development of institutional policies.

Altmetrics
- As the role and importance of repositories increases, academic librarians should develop workflows and consultation services to support the depositing of research in institutional, discipline, and agency repositories.
- As compliance requirements continue to evolve, academic librarians should take the lead in developing educational initiatives around open access and author rights.
- To enhance the discoverability of Open Access content, librarians should collaborate with major publishers to index Open Access journals.
- The increasing availability of open access journal content will impact local collection subscription decisions, as libraries continue to consider delivery/access vs. ownership/retention.
- Researchers will increasingly share their research via social media that best serve

their network and include altmetric data in documenting the impact of this research.

Impact on Student Success

- Demonstrating Value
- Assessment in Action
- Teaching and Learning
  - ACRL Framework
- Competency-Based Education

Demonstrating Value

Assessment in Action
- Given current trends in funding models and calls for accountability in higher education, librarians must develop the expertise to articulate and document the impact of libraries on student learning and success. Programs such as AiA provide resources and expertise for libraries of all types to explore methods for collaboration and assessment across the institution.

Teaching & Learning
- Pedagogical innovations such as flipped classrooms, gamification, or high impact educational practices provide librarians opportunities to engage with curriculum development and collaborate with faculty in new and productive ways.
- User experience (UX) and usability testing that informs the development of library resources will continue to be a growth area for academic librarians.

Competency-based Education
- As institutions review curricula with competency-based education and credit for prior learning in mind, the library has an opportunity to address the need for information literacy skills as well as offer options for assessing these skills on behalf of the program.

- With higher education under increased scrutiny to demonstrate the value of a post-secondary degree, it is incumbent upon academic libraries and librarians to communicate the Library's value in relation to student and faculty recruitment, retention, and teaching and learning success.

Evolving Roles for Staff

New expectations

Opportunities for Collaboration

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