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Introduction

The University of Michigan (U-M) received a three year Institute of Museums and Library Services grant ($495,280 / IMLS LG-96-18-0040-18) named Library Learning Analytics Project: Demonstrating How Libraries Impact Learning to study how academic libraries impact learning. The grant focuses on best practices and policies for learning analytic activities, with a particular focus on privacy and data security.

In light of changing scholarly practices, emerging user needs, and new expectations about when and where learning happens, we have an opportunity to be agile, re-imagine services, and embrace innovative practices that enable scholarship. With that opportunity is the need to build engagement strategies and tools for libraries to use. Libraries have for good reasons prioritized the privacy and security of user data, removing individual identifiers from library use data in order to protect the privacy of users. A focus of this grant is to explore how libraries can take the lead on key issues of how to deploy analytics to improve learning outcomes without giving privacy concerns short shrift.

The purpose of the privacy guide is to increase awareness and transparency as well as capture emergent practices related to policies and best practices. The aim of this guide is to provide shareable tools based on principled engagement and professional agency. It is to bring together vision with strategies for engagement and dialogue.

The framing for this guide will enable you to:

1. Learn a bit about privacy
2. Be able to understand benefits & challenges of Library Learning Analytics
3. Engage library stakeholders
4. Consider what things your library needs to further investigate
Working Definitions

Words such as privacy, confidentiality, anonymity are often used interchangeably, yet each is a concept holding different meaning. Understanding and articulating key differences prior to engaging stakeholders is helpful in setting the stage for a meaningful and engaging discussion around learning and library analytics.

- Privacy
  - From the International Association of Privacy Professionals: “Broadly speaking, privacy is the right to be let alone, or freedom from interference or intrusion. Information privacy is the right to have some control over how your personal information is collected and used.”
  - From the ALA Interpretation of the Library Bill of Rights: “In a library (physical or virtual), the right to privacy is the right to open inquiry without having the subject of one’s interest examined or scrutinized by others.”
  - The first modern articulation of privacy, from the 1890 law article “The Right to Privacy” by Warren & Brandies: “…for the protection of the person, and for securing to the individual … the right to be let alone (emphasis added).”
  - From Alan Westin’s 1967 seminal work “Privacy and Freedom:” “Privacy is the right of individuals to control, edit, manage, and delete information about themselves, and to decide when, how, and to what extent information is communicated to others.”

- Confidentiality
  - From the International Association of Privacy Professionals: “Data is "confidential" if it is protected against unauthorised or unlawful processing.” This obligation can be be rooted in legal, ethical/professional obligations.
  - From the ALA Interpretation of the Library Bill of Rights: “Confidentiality exists when a library is in possession of personally identifiable information about users and keeps that information private on their behalf. Confidentiality extends to “information sought or received and resources consulted, borrowed, acquired or transmitted” (ALA Code of Ethics), including, but not limited to: database search records, reference questions and interviews, circulation records, interlibrary loan records, information about materials downloaded or placed on “hold” or “reserve,” and other personally identifiable information about uses of library materials, programs, facilities, or services.
  - From the Digital Library Federation Ethics in Research Use of Library Patron Data Glossary and Explainer: “Confidentiality is the act of holding information about an individual but not disclosing it to others without proper authority and necessity. Confidentiality applies specifically to a person’s data, and is related to, but narrower than, the broader concept of privacy.”

- Anonymity
○ From International Association of Privacy Professionals: “[A]nonymous information or data is not related to an identified or an identifiable natural person and cannot be combined with other information to re-identify individuals.”
○ From the Digital Library Federation Ethics in Research Use of Library Patron Data Glossary and Explainer: “In human subjects research contexts, anonymity means the inability to connect any research subject’s data with the individual represented in those data.”

- Learning Analytics
  ○ One early academic definition defines learning analytics as: “the measurement, collection, analysis and reporting of data about learners and their contexts, for purposes of understanding and optimizing learning and the environments in which it occurs.”
  ○ 1st International Conference on Learning Analytics and Knowledge (https://tekri.athabascau.ca/analytics/) defines it as “the measurement, collection, analysis and reporting of data about learners and their contexts, for purposes of understanding and optimising learning and the environments in which it occurs.”

- Library Analytics
  ○ “Library analytics” refers to library data whose primary use is in improving library services, but which may also contribute to the larger understanding of students in the campus context. (University of Michigan Library)

Laws & Guidelines

There is a growing number of laws and regulations related to privacy and confidentiality designed to protect individuals. In the library learning analytics context, the following are some specific laws and regulations to be aware of. Any collection and use of data for a learning analytics project will need to be in compliance with relevant laws and policies.

- International law
  ○ Depending on your institution's location or affiliations, certain international laws, such as the European Union General Data Protection Regulation (GDPR), may apply. Consult with your legal counsel to determine what your obligations are with respect to international law.

- Federal law
  ○ The Family Educational Rights and Privacy Act (FERPA) of 1974 is the overarching federal law governing access of educational information and records to public entities. More information on the specific provisions of FERPA can be found at https://www2.ed.gov/policy/gen/guid/fpco/ferpa/index.html
• State laws
  ○ Many states have laws governing the privacy and confidentiality of library patron records. Library privacy policies, as well as any participation in learning analytics projects should be in accordance with relevant state laws. The provisions of these laws vary from state to state. See - http://www.ala.org/advocacy/privacy/statelaws.

• Professional organization codes of ethics, guidelines, and policies
  ○ In addition to adhering to federal and state laws, libraries should ensure that codes of ethics and stated policies or guidelines from professional associations regarding the privacy and confidentiality of library records are respected when participating in learning analytics projects. Libraries should consult the American Library Code of Ethics, Society of American Archivists Code of Ethics, and National Information Standards Organization Privacy Principles for guidance on the sharing and use of library records. Additionally, libraries should consult state library associations for additional policies or guidelines.
    ○ ALA Code of Ethics
      ■ http://www.ala.org/tools/ethics
    ○ ALA Library Bill of Rights (specifically, Article VII)
      ■ http://www.ala.org/advocacy/intfreedom/librarybill
    ○ SAA Code of Ethics
      ■ https://www2.archivists.org/statements/saa-core-values-statement-and-code-of-ethics
    ○ NISO Privacy Principles
      ■ https://www.niso.org/publications/privacy-principles

• Institutional policies
  ○ In planning a learning analytics project, it will be important to communicate closely with institutional stakeholders to ensure compliance with any existing institutional policies governing research. These can include, but may not be limited to, the Office of General Counsel, University Privacy Officer, Office of Research, and Institutional Review Board (IRB).

• Library policies
  ○ Lastly, participation in learning analytics projects should be in accordance with library privacy policies. Resources for crafting or revising a library privacy policy can be found in the American Library Association Privacy Toolkit, below.
    ○ http://www.ala.org/advocacy/privacy/toolkit

• Learning Analytics Guidelines
  ○ University of Michigan Learning Analytics Guidelines
Potential Stakeholders

Exploring your campus environment is essential to beginning an analytics project. From this scan, you will be able to identify stakeholders, potential partners, where policies exist and where they do not, who may have data you need, and what issues or constraints for which you need to plan. Below is a list of likely stakeholders on many campuses/institutions, yet each campus and institution is unique so you may have additional or fewer stakeholders to engage relative to the ones listed below. In generating your list of potential stakeholders, think broadly about where library data stored, who has access to it?, whose data is it?, what activity does it reflect and who might be affected by the collection of it?, who has expertise to clean and analyze the data?, where can you find out about relevant institutional policies and regulations? And who is doing similar work or would be interested in your findings?

- Library users
  - Faculty, students, staff and public
    - Students: Understanding and engaging with student attitudes and perspective in the discussion of learning analytics. Strategies from focus groups to formal meetings with student governments to surveys offer a way to partner with students and bring their voice into decision-making and direction setting.
    - Since the data used in a learning analytics project will be about (and belong to) library users, open communication and transparency around what data is being collected and for what purpose will be vitally important. Gathering feedback from users about their concerns and giving them agency over the use of their data (via opt-in or opt-out mechanisms) will help develop and maintain trust.

- Office of Institutional Research
  - This office can help you find sources of data across campus. Staff here often know who has access to certain types of data. Also, they generally have expertise in data analysis and access to analytical tools that may be of use to you. They may know of additional staff or students who can help with data analysis.

- Student Records
  - This could be a Registrar’s Office or a Student Records Office. You can inquire about gaining access to student information including identifiable data.

- University administration
  - Depending on the structure of your institution, it is good to explore your campus’ general policies and procedures around data privacy. You want to make sure that your plans are in step with accepted university practice.

- Faculty Senate
  - Due to the privacy and academic freedom implications of library learning analytics works, if your library analytics work will draw on faculty data (whether
faculty as library patrons or drawing data from other university systems), you should consider engaging the faculty senate early in the process.

- **General counsel**
  - The general counsel is invaluable for helping to understand campus priorities and policies around privacy, especially if your campus does not have a separate privacy officer. As you develop library policies and practices around privacy, you should do so in close consultation with the general counsel. This is crucial before you get far in your planning process.

- **Privacy officer**
  - If your campus has a privacy officer, they should be integrated into all planning that your library undertakes around privacy - from internal procedures to posted privacy policies and analytics projects.

- **Institutional review board (IRB)**
  - The IRB will help you understand when you need to obtain approval from them in order to conduct research. The IRB will also provide information on what certifications/training your campus requires for individuals to conduct research on human subjects, conduct ethical research, and comply with campus research expectations.

- **IT Organization**
  - IT can be a source of data as well as a source of expertise on manipulating and storing data,

- **Library (policies and staff)**
  - Identify all existing library policies related to patron privacy and data privacy, realizing that some of this information may be in staff training documentation if it is not an actual published policy. It is essential to have open discussions with staff about patron privacy to help them understand reasons for potential policy changes.

- **Library (Advisory) Board**
  - Library boards, whether for public or academic libraries, are important stakeholders. They often provide guidance and feedback that represents the opinions of larger groups of users. Engage this group early to educate them on potential privacy changes and to help anticipate user concerns.

- **Library profession**
  - Understanding the professional environment in which you are making policy decisions is very important as well. Engaging with varied opinions will help you and your library make more informed decisions when it comes to patron privacy on your campus.
Stakeholder Engagement Strategies

After identifying all the various stakeholders with whom you should engage, the next step is to decide what is the best strategy for engaging them and what issues are most relevant for that discussion. Is it access to data that you don’t have? Is it help with convincing stakeholders that this is good for the library and the institution? Or is it related to privacy concerns or other institutional policies? Below are several items that will help to forge conversations around your library’s venture into library learning analytics.

- **Learning Library of Tomorrow Scenario**: a not-so-science-fiction view of what the library of tomorrow might be capable of, along with discussion prompts to explore the benefits and challenges of such a library
- **Library Integration in Institutional Learning Analytics**
- **U-M Case Studies** to consider and adapt as needed for discussion purposes
- **University of Michigan Learning Analytics Guiding Principles**, which can be used for institutional level discussions. [link]

Videos & Presentations

These videos and presentations provide perspectives that libraries are exploring related to the possibilities raised library learning analytics, examples of library stakeholders engagement and overviews of issues being discussed and debated.

- **Evaluating and Closing Privacy Gaps for Online Library Services**
  Lisa Janicke Hinchliffe (UIUC), Katie Zimmerman & Micah Altman (MIT)
  o Combines 2 presentations: *Privacy Gaps in Mediated Library Services* and *Negotiating for What We Want: A Proposal for Model License Language on User Privacy*.
    - YouTube: [link]
    - Vimeo: [link]
- **Protecting Privacy on the Web: A Study of HTTPS and Google Analytics Implementation in Academic Library Websites**
  Kenning Arlitsch & Scott W.H. Young (Montana State University)
  o How well do academic libraries protect privacy in the digital age? This presentation reports the results of a study funded by IMLS and conducted by Montana State University and the University of New Mexico.
  - YouTube: [link]
Why Privacy Matters
Glenn Greenwald, Investigative Journalist that led the Snowden leaks reporting
  ○ Ted.com: https://www.ted.com/talks/glenn_greenwald_why_privacy_matters

What Will a Future Without Secrets Look Like
Alessandro Acquisti, Professor of Information Technology and Public Policy, Carnegie
Mellon University
  ○ Ted.com: https://www.ted.com/talks/alessandro_acquisti_why_privacy_matters

The Ethics of Collecting Data
Marie Wallace, Analytics Strategist, IBM
  ○ Ted.com: https://www.ted.com/talks/marie_wallace_the_ethics_of_collecting_data

Privacy is Freedom: Censorship, Power Asymmetries & Politics
  ○ Privacy@Michigan - Data Privacy Day 2018
    https://www.youtube.com/watch?v=pBgJ7kvYpaM&t=0s&list=PLZFSaKAB4aZhk
    ENt40gUns4WHCV5vBrx4&index=4

Templates & Privacy Statements
There are numerous examples of library privacy statements available from searching online or
visiting websites of peer institutions. Below are a sample from the Association of Research
Libraries, the American Library Association, and the University of Michigan. Consider these as
templates from which you can take inspiration and ideas in order to revise your library policy, or
in some cases create a policy is none exists. The ARL SPEC Kit and ALA Privacy Toolkit
provide additional resources for you to consider in addressing a privacy policy that will embody
the values and priorities of your institution. The Memorandums of Understanding below are
samples of policy and procedure documents for requesting data from other units and sharing
your own library data between different units within your institution for research purposes.

- ARL Learning Analytics SPEC Kit and Sample Privacy Policies
- ALA Privacy Toolkit
  ○ Developing or Revising a Library Privacy Policy
- University of Michigan Library Privacy Statement
- Sample Memorandums of Understanding for data use (see bottom of page)
Further Readings

Library Learning Analytics Project Resources
These resources are designed to encourage thought and engagement around libraries and learning analytics. Readings are provided for background information and exploration around learning analytics more broadly.


Section 9.2: While the literature on learning analytics is voluminous, the following seven readings provide foundational information on learning analytics and suggest initial steps for librarian involvement.

- Further readings are available on the Library Learning Analytics Project website.

9.3 Privacy Resources: The following resources provide a basic framing for privacy considerations related to libraries and learning analytics.
● 7 Things You Should Know About How Learning Data Impacts Privacy
  https://library.educause.edu/resources/2017/5/7-things-you-should-know-about-how-learning-data-impacts-privacy

● ALA Code of Ethics

● Association of Institutional Research Code of Ethics and Professional Practice
  http://www.airweb.org/Resources/Pages/Code-of-Ethics.aspx

● Consenting Adults? Privacy in an Age of Liberated Learning Data

● Ethical Use of Student Data for Learning Analytics Policy

● Ethics and Privacy in Learning Analytics – a DELICATE issue
  http://www.laceproject.eu/blog/ethics-privacy-in-learning-analytics-a-delicate-issue/

● Ethics and Privacy in Learning Analytics

● IMS Global Learning Data & Analytics Key Principles
  http://www.imsglobal.org/learning-data-analytics-key-principles

● JISC Effective Learning Analytics - Using Data and Analytics to Support Students
  https://analytics.jiscinvolve.org/wp/

● Code of Practice for Learning Analytics:
  https://analytics.jiscinvolve.org/wp/2015/06/04/code-of-practice-for-learning-analytics-launched/ and https://www.jisc.ac.uk/guides/code-of-practice-for-learning-analytics

● Literature Review:
  http://repository.jisc.ac.uk/5661/1/Learning_Analytics_A-_Literature_Review.pdf

● Taxonomy of Issues:
  https://analytics.jiscinvolve.org/wp/2015/03/03/a-taxonomy-of-ethical-legal-and-logistical-issues-of-learning-analytics-v1-0/

● The Learning Analytics Landscape: Tension Between Student Privacy and the Process of Data Mining

● NISO Consensus Principles on User’s Digital Privacy in Library, Publisher, and Software-Provider Systems

● NIST Cybersecurity Framework
  https://www.nist.gov/cyberframework

● SPEC Kit 360: Learning Analytics
  https://publications.arl.org/Learning-Analytics-SPEC-Kit-360/

● University of California Learning Data Privacy Principles and Recommended Practices
  https://library.educause.edu/~media/files/library/2016/12/learningdataprivacyslides.pdf
● University of Maryland, Baltimore County – Use of Student Data https://my3.my.umbc.edu/about/studentdata
● University of Michigan Learning Analytics Guiding Principles http://ai.umich.edu/learning-analytics-guiding-principles/
● University of Michigan Library Privacy Statement https://www.lib.umich.edu/library-administration/library-privacy-statement