



# A Roadmap for Achieving Privacy in the Age of Analytics

A White Paper from a National Forum on Web Privacy  
and Web Analytics



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## SUMMARY

*A National Forum on Web Privacy and Web Analytics* is an IMLS-funded, community-fueled effort to shape a better analytics practice that protects our users' privacy from unwanted third-party tracking and targeting. The main Forum event was held September 2018 in Bozeman, Montana, where 40 librarians, technologists, and privacy researchers collaborated in producing a practical roadmap for enhancing our analytics practice in support of privacy. Forum participants co-created eight *Pathways to Action* for enhancing web privacy. Forum activities also informed the development of an *Action Handbook* that contains practical skills and strategies for implementing privacy-oriented, ethical web analytics in libraries.

This white paper provides an overview of the project, with a summary of the *Pathways to Action* and the *Action Handbook*. We present these resources to the wider community to remix, reuse, and apply towards action.

## BACKGROUND, CONTEXT, AND MOTIVATION

Libraries need web analytics. The usage measurement statistics generated from web tracking software help tell a story of value and impact for library stakeholders, including funding agencies, university administrators, and community boards. Analytics also serve a crucial role for tuning, tailoring, and improving services to better help library users. Google Analytics—the powerful, comprehensive, and easy-to-install software package—has emerged as a leading choice for web analytics in libraries. From the perspective of monetary cost, Google Analytics is free to use, a factor that amplifies its widespread use. From the perspective of user privacy, however, Google Analytics is anything but free to use. As a third-party web tracker, Google Analytics participates in a vast network of third-party tracking on the web that exposes user data to countless additional trackers. In many cases, the user has not given fully informed consent for this data sharing, nor does the website owner fully understand the capabilities and consequences of web analytics and other third-party trackers.

Libraries understand that users value privacy. Libraries have historically offered safe spaces of intellectual freedom that are underpinned by a commitment to privacy in the pursuit of information, yet the widespread implementation of commercial analytics packages such as Google Analytics on library websites may conflict with the library profession's long-held values of privacy and intellectual freedom.

With funding from the Institute of Museum and Library Services, the National Forum for Web Analytics and Web Privacy was held from September 12-14, 2018, on the campus of Montana State University in Bozeman, Montana. The Forum aimed to address the need to enhance our profession's understanding and practice of web analytics and privacy, with a view towards our unique commitment to privacy. By bringing together stakeholders and participants from across disciplines, the Forum aimed to focus our profession's privacy conversation and provide an actionable roadmap for enhancing user privacy in the age of web analytics.

## A NATIONAL FORUM ON WEB PRIVACY AND WEB ANALYTICS

The three-day National Forum on Web Privacy and Web Analytics brought together approximately 40 librarians, library administrators, systems developers, product designers, user experience designers, lawyers, technologists, and privacy researchers, in an effort to build consensus and develop an actionable agenda for implementing values-driven web analytics across a nation-wide spectrum of libraries: public, academic, community college, tribal, school, and special.

The main approach of the Forum was to apply collaborative design exercises so as to structure conversation and build evidence to inform a practical roadmap for improving analytics practices in support of privacy. By collaborating together to bring out everyone's best thinking, the Forum aimed to cultivate a safe space for productive, creative, and critical work. The main goal of the Forum was to create one or more practical, workable strategies for improving analytics practices. The in-person work together ultimately directed our efforts and our outputs.

A pre-Forum survey was administered to the participants to gather data about the expectations and ideas of the Forum participants. (For full survey instrument, please see Appendix A). Four key themes were identified in the survey:

1. Partnerships and Collaborations
2. Ethics
3. Privacy and Marginalized Communities
4. Policies
5. User Education and Professional Development
6. Analytics Alternatives

### PRE-FORUM SURVEY QUESTIONS AND THEMATIC SUMMARY OF RESPONSES

#### Survey Question

**What questions do you have about web analytics and web privacy?**

##### Response Themes

- What do users understand about privacy and analytics?
- What are all the options for web analytics? How do they all operate?
- What are the ethics of web analytics?
- How can we better coordinate as a community around these issues?

#### Survey Question

**Predict Next Year's Headlines. Think into the future, and imagine that next year your favorite publication is reporting on the work of this Forum. What would you want the headline to read?**

##### Response Themes

- New Policies
- New Practical Guidelines
- New Partnerships and Collaborations
- New Tools
- New Outreach and Education Models

#### Survey Question

**What issues do we sometimes neglect when we discuss patron privacy, library values, and web analytics?**

##### Response Themes

- Technical understanding and professional education/development
- User Education and Consent
- Data Collection Practices
- Values Alignment
- Privacy Documentation
- Partnerships and Collaborations
- Privacy and Diversity

### Survey Question

What are the current barriers or resource limitations that need to be overcome regarding web analytics?

#### Response Themes

- Legality
- Technical Capabilities and Data Literacies
- Leadership Support
- Living our Values within a complex landscape
- Partnerships and Collaborations
- Finding Analytics Alternatives
- Diversity and Privacy

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### Survey Question

What are the necessary next steps for addressing patron privacy and web analytics?

#### Response Themes

- Professional Development
- Understanding and Addressing User Needs
- Develop better analytics practices
- Build new Partnerships and Collaborations
- User Education and Engagement
- Better Policies and Documentation

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### Survey Question

How does your work benefit from web analytics or other tracking tools?

#### Response Themes

- Marketing
- Evidence-based decision-making
- Service Improvements and Usability
- Student Success and Institutional Alignment

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### Survey Question

What ethical codes or frameworks do you use to inform your privacy practices as a professional?

#### Responses

- IRB
- Government laws
- ACM Code of Ethics and Professional Conduct x3
- ALA Code of Ethics x19
- ALA IFC's Library Privacy Guidelines for Library Websites
- ALA Privacy Guidelines and Checklists
- ALA Library Bill of Rights x3
- NISO Consensus Principles x8
- CFLA Code of Ethics
- IFLA x4
- American Association of Law Libraries Ethical Principles
- Electronic Frontier Foundation
- SAA Code of Ethics x4
- Designer's Code of Ethics
- UN Universal Declaration of Human Rights
- ACRL Info Lit Framework
- University privacy policy x2
- Data Privacy Project
- Illinois Library Records Confidentiality Act
- American Anthropological Association
- American Sociological Association
- GDPR

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During the Forum event, the participants were sorted into four interest groups according to these key themes derived from the survey:

- Ethics and Equity
- Education and Engagement
- Policy
- Analytics Tools

Each group completed a series of collaborative exercises to explore different facets of the themes. The activities of each day of the Forum event are summarized below.

## DAY 1

Day 1 focused on getting to know each other and building a shared understanding of the problem. The collaborative exercises on Day 1 focused on understanding the other Forum attendees, their goals, needs, and feelings, defining the project's objectives, scope, and challenges, and beginning to generate strategies for addressing the problem.

*Float Your Boat* is an example of an exercise from this stage of the Forum (Figure 1).

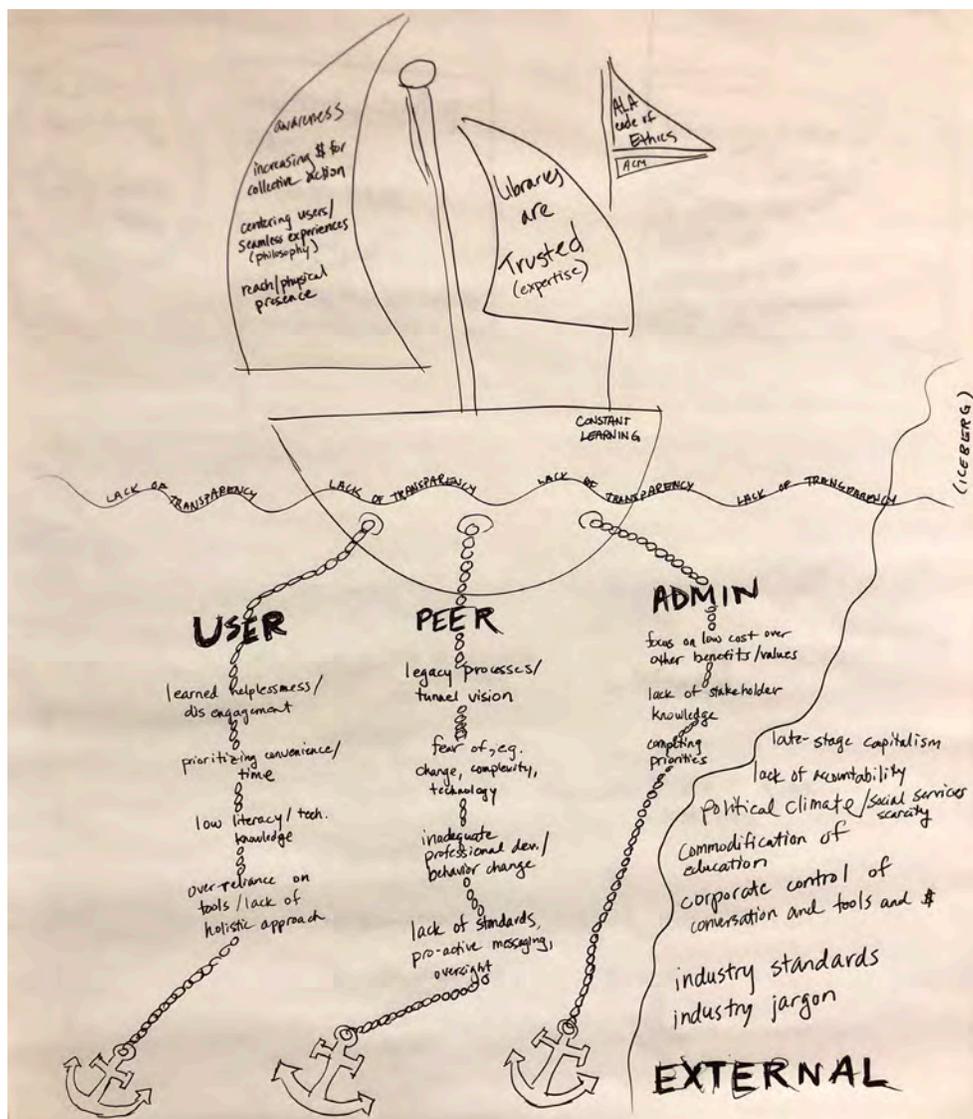


Figure 1. The *Float Your Boat* exercise. In this example, participants drew a boat that represented privacy education and engagement, with sails that represent strengths and anchors that represents challenges.

In this exercise, participants drew a boat, named the boat after their thematic area. Figure 1 shows the example from the Education and Engagement group. Participants then attached anchors and sails to the boat. The anchors represent obstacles and challenges, while the sails represent strengths and aptitudes. Participants drew their boats, and then we talked through the results as a group. The goal of this exercise is to identify what's holding us down and what's keeping us moving, and the outcome is a metaphorical boat that demonstrates the strengths and challenges of achieving privacy in libraries.

## DAY 2

Day 2 focused on generating and evaluating strategies for addressing the problem. The collaborative exercises on Day 2 focused on generating ideas, investigating opportunities, working through emerging concepts; then creating prototypes, service models, policy statements, and privacy strategies; and then beginning to evaluate emerging strategies for validity.

*The Stakeholders Map + Walk a Mile* are two exercises that illustrate this stage of the Forum (Figure 2).



Figure 2. Stakeholders Map + Walk a Mile, showing the network of stakeholders related to privacy education and engagement.

To complete a Stakeholders Map, participants drafted a list of key people and organizations related to privacy in libraries, and then created a network representation that linked these entities to each other. To complete Walk a Mile, participants then highlighted up to five stakeholders that especially influence privacy in libraries. For each highlighted stakeholder, participants responded to the following prompts: “If I were this group or person, how could I improve the situation? What new collaborations, tools, or service models could I create?” The goal of these two exercises is to generate ideas for new collaborations, tools, and new service models, and the outcome is a list of potential partners with ideas for productive collaborations, tools, and service models.

## DAY 3

The collaborative exercises on Day 3 focused on continuing to evaluate strategies for validity, then selecting the most feasible strategies.

*MoSCoW* is an example of an exercise from this stage of the Forum (Figure 3).

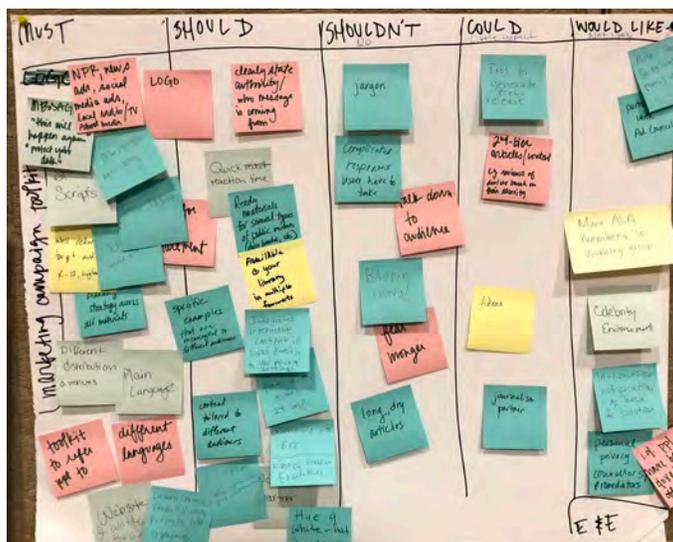


Figure 3.

In this exercise, participants provided further detail for the privacy strategies that emerged through prior exercises. For each strategy, participants sketched out the features and characteristics using five categories:

- **Must have:** features that are critical and need to be implemented to have a successful product.
- **Should have:** features that are important but are not critical
- **Shouldn't have:** features or characteristics that would weaken the product or service
- **Could have:** features that would be nice to have, but won't make a significant change
- **Would like but won't get:** are features that are too difficult to implement

The goal of this exercise is to sketch out a clear hierarchy of what should be implemented for a new product or service, and what is not feasible to include within the current constraints. The output is a list of potential features or characteristics of a new product or service.

Day 3 concluded with a presentation of all the strategies that emerged during the course of the forum. Informal polling was conducted to identify the strategies that generated the most motivation and interest among the participants. Participants were then grouped according to a set of 8 final strategies for achieving privacy, and given unstructured creative time to further develop and refine the ideas.

## POST-FORUM

Following the conclusion of the Forum, the project team analyzed and synthesized the evidence produced during the forum. We sought feedback and comments from the wider community at conference events throughout the Fall of 2018 and the Spring of 2019. We gathered further feedback through online collaborative editing tools. In reviewing the evidence from the forum along with wider feedback, we distilled the our community's insights and expertise into two primary outcomes, discussed below.

## OUTCOMES

The work of the Privacy Forum has ultimately led primarily to two action-based outcomes. First, an *Action Handbook* that contains technical and social recommendations for implementing a more privacy-oriented analytics practice. Second, a set of *Pathways to Action* that propose strategies and initiatives for enhancing analytics in support of privacy. The *Pathways* represent 8 different project ideas for our community to develop further. We describe these outcomes in more detail below.

### ACTION HANDBOOK

This is a practice-oriented action handbook that provides background, resources, and good practices to guide libraries in ethically implementing web analytics with a view towards privacy.

We are publishing the *Action Handbook* as a standalone document, available at the following DOI:  
<https://doi.org/10.15788/20190416.15446>

### PATHWAYS TO ACTION

Eight *Pathways to Action* emerged from the activities of the forum. These Pathways are designed as points of inspiration and launching pads for further work. The pathways are listed below, with links to more information.

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#### Analytics Dashboard

##### Problem Statement

Current tools collect and analyze more data than is necessary for library assessment, risking user privacy and data liability.

##### Description

A simple, lightweight analytics framework and dashboard to show only necessary data points. Inspiration from [Simple Analytics](#) as to display and data collection.

##### More information

<https://osf.io/njpgd/>

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#### Privacy Certification and Badging

##### Problem Statement

Privacy policies help library users understand how their personal and transactional data is used, stored, processed, or shared. However, privacy policies may be long and complex, and users may not read the policies.

##### Description

To improve the transparency of data use, a Privacy Certification System would establish stratified data privacy badges for libraries and their information vendors (E.g., “LEED-like” Certification for Data Privacy Compliance). Compliance with these standards will be subject to an auditing/certification process so that library users can trust that the way a library or vendor claims they handle user data is accurate.

##### More information

<https://osf.io/n25b7/>

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## Toolkit for Values-Based Assessment

### Problem Statement

The starting point for many assessments begin with the approach of collecting everything possible—but this can lead to privacy incursions and data liability.

### Description

The toolkit can serve as an advocacy document that justifies data collection and establishes its boundaries. The project aims to provide tools and best practices for implementing ethical and user-conscious assessment.

### More Information

<https://osf.io/f7ubr/>

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## Privacy Research Institute

### Problem Statement

Library practitioners and leaders lack empirical research that can inform policy and practice in support of privacy.

### Description

A cross-institutional research institute to create evidence-based privacy advocacy and privacy-focused practice. This idea could be implemented as a network of local institutes that connect to a wider umbrella institute (or funder), or it could be a broader institute with affiliated researchers from many institutions.

### More Information

<https://osf.io/m4brh/>

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## Privacy Training for Leadership Institutes

### Problem Statement

Library leaders and administrators don't always fully understand or appreciate privacy incursions and data liability.

### Description

A privacy-focused training module that can be integrated with established leadership institutes can help prompt urgency among library leaders, accelerating implementation of privacy-oriented initiatives. The module could be adapted to span anywhere between ½ and 3 days.

### More information

<https://osf.io/bc9a8/>

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## Privacy Policy Workshops

### **Problem Statement**

Policies are important but often obscure to users and librarians alike.

### **Description**

Professional development workshops for library workers on writing and implementing library privacy policies, offered in both in person and online formats. Over time, a repository of example policies would also emerge as a natural result as well as a directory of those individuals and libraries experienced in this area.

### **More information**

<https://osf.io/bx2fh/>

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## Privacy within Tribal Communities and Organizations

### **Problem Statement**

Tribal groups and Indigenous peoples have culturally-specific concepts and practices related to cultural heritage access and data privacy that don't fit into a traditional Western paradigm. Intentional outreach and inquiry with and for Native communities is needed to understand and address access and privacy.

### **Description**

This project entails education and outreach to First Nations and Indigenous communities, tribal colleges and universities, community/public libraries, school libraries, social services (children's, food banks, etc.), records management, health, tribal youth organizations, indigenous languages organizations, and legal/law libraries. This work would be led by Indigenous stakeholders, with a view towards restorative action in support of cultural healing and revitalization.

### **More information**

<https://osf.io/8vspe/>

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## Model License Language

### **Problem Statement**

The License language that forms user access agreements between libraries and vendors is often written by the vendor and therefore may lack library values.

### **Description**

Develop model license language on user privacy that would support libraries in advocating for user privacy when contracting for services and content. Model license language could address user privacy, data tracking, data security, data sharing, and consent as well as other topics.

### **More information**

<https://osf.io/ae2dg/>

## NEXT STEPS

This white paper contains summary overviews of a practical *Action Handbook* along with eight *Pathways to Action* for supporting privacy in libraries. The Pathways represent idea for projects, initiatives, and ideas for enhancing analytics practice with a view towards privacy. We present these ideas to the wider library community to remix, reuse, and apply towards action, and we invite creative reuse of these project materials. In support of sustainable action, the project team will continue to serve as conveners, connectors, and facilitators of community effort as we work together to achieve our community goal of achieving privacy.

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## APPENDICES: FULL DATA PRESENTATION

### Appendix A: Forum Materials and Evidence

- Available via our OSF Project Site: <https://osf.io/gnfpu/>

### Appendix B: Pre-Forum Survey instrument

- <https://osf.io/enqjv/>

### Appendix C: Summary Descriptions of Pathways to Action

- Analytics Dashboard: <https://osf.io/njpgd/>
- Toolkit for Values-Based Assessment: <https://osf.io/f7ubr/>
- Model License Language: <https://osf.io/ae2dg/>
- Privacy Certification and Badging: <https://osf.io/n25b7/>
- Privacy Policy Workshops: <https://osf.io/bx2fh/>
- Privacy Research Institute: <https://osf.io/m4brh/>
- Privacy Training for Leadership Institutes: <https://osf.io/bc9a8/>
- Privacy within Tribal Communities and Organizations: <https://osf.io/8vspe/>

