NNLM EVALUATION CENTER (NEC)
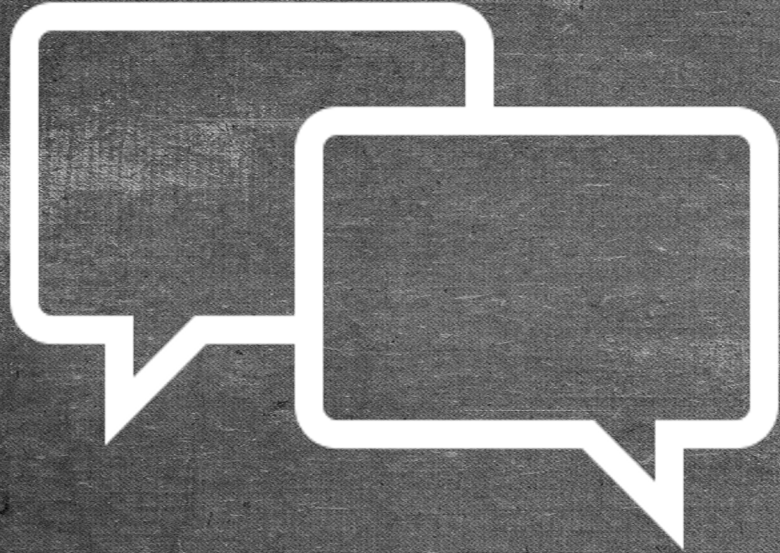
NEC Kickoff
June 25, 2021

Meet the Team
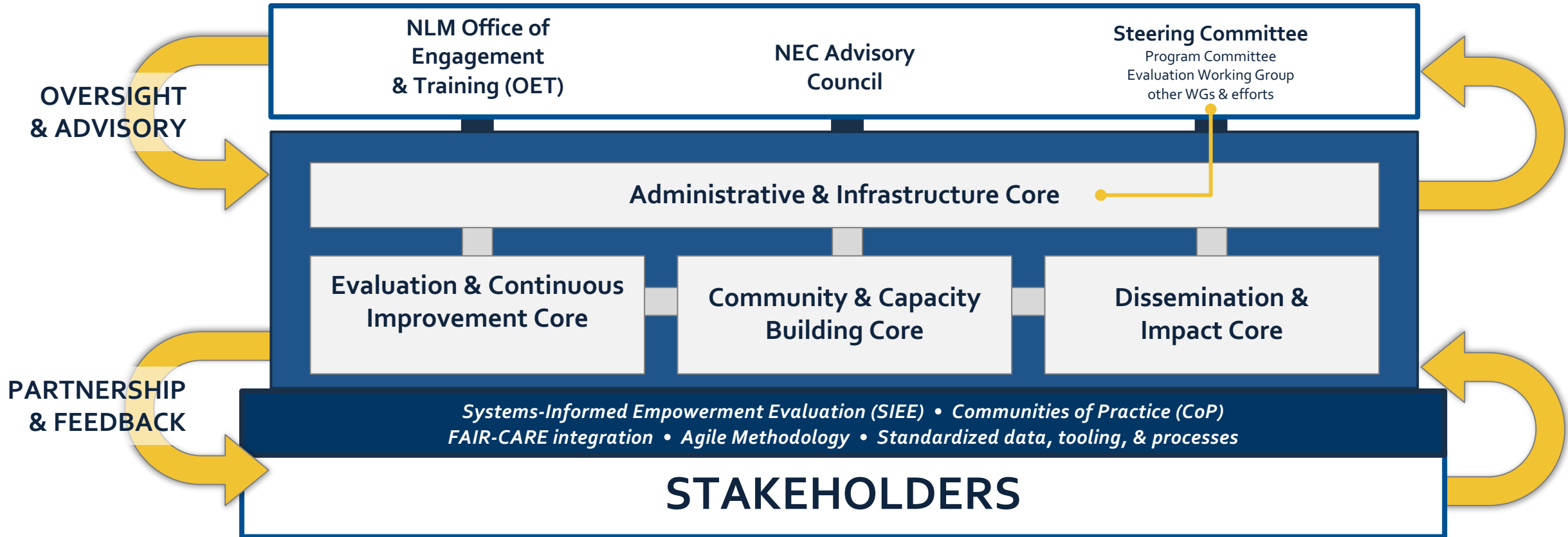
What we learned from you!

✓ Role of the NEC
✓ Data opportunities
✓ Tooling opportunities
✓ Support for RMLs and Offices
✓ Support work with grantees
✓ Know our Members
✓ Program outcomes

Structure Supports Alignment and Action

OVERSIGHT & ADVISORY

NLM Office of Engagement & Training (OET)

NEC Advisory Council

Steering Committee
Program Committee
Evaluation Working Group
other WGs & efforts

Administrative & Infrastructure Core

Evaluation & Continuous Improvement Core

Community & Capacity Building Core

Dissemination & Impact Core

PARTNERSHIP & FEEDBACK

Systems-Informed Empowerment Evaluation (SIEE) • Communities of Practice (CoP)
FAIR-CARE integration • Agile Methodology • Standardized data, tooling, & processes

STAKEHOLDERS

National Library of Medicine
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A participatory and inclusive approach

- Understanding and leveraging the whole Network

- Capacity and community building

- Communities of Practice

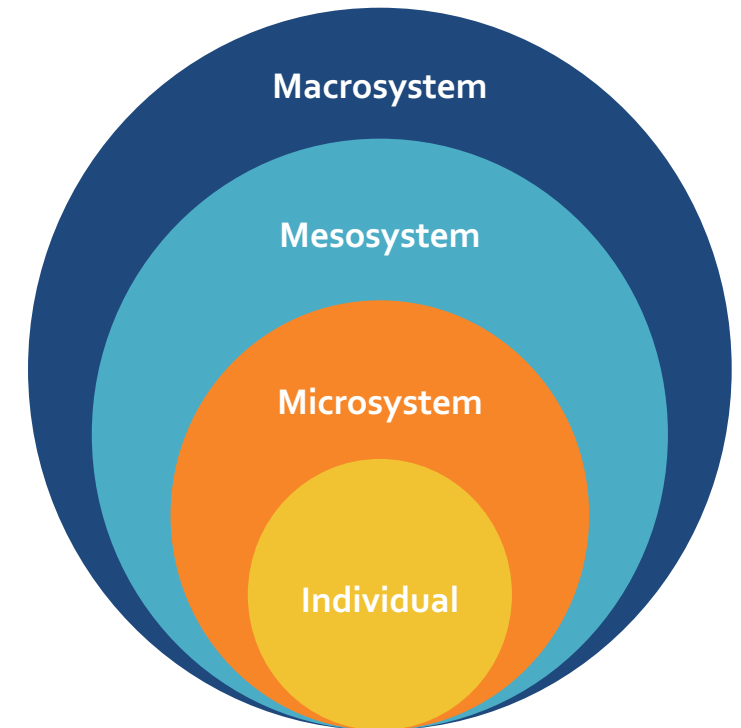- Systems-Informed Empowerment Evaluation

DOMAIN
what we care
about

PRACTICE
what & how we do
things together
about it

COMMUNITY
who cares about it

Macrosystem

Mesosystem

Microsystem

Individual

⚙️ ADMINISTRATION & INFRASTRUCTURE CORE

Establish and sustain an agile administration and infrastructure to support the NEC.

⚙️ Key Initiatives

Communication & Engagement infrastructure	Accountability and Feedback	REDCap (w/ECI)
Network-wide evaluation data	NNLM Beacon to support Open and FAIR processes (implementation)	NNLM Personas

Communications

Confluence	Infographics
Newsletter	Plain language summaries
Website	Office Hours
Slack	SOPs
Email	Events
[...]	[...]

NNLM Network of the National Library of Medicine

National Evaluation Center News & Notes

Welcome to the NEC!

Welcome to the NNLM Evaluation Center! Our work is grounded in a very collaborative and participatory approach, and we look forward to working with you and your teams as we use evaluation as a tool to help us benefit the Network and advance the mission of NNLM. Over the coming weeks we will highlight major program areas and introduce you to our NEC team members. We welcome you to contact us anytime with questions, needs, and ideas for collaborative action. We look forward to working with you!

NEC Key Functions

- Enable and support rigorous evaluation and continuous improvement across the NNLM through common metrics, tooling, and workflows
- Collaborate with RMLs/Offices/Centers to develop strategies, metrics, and guidelines to plan, evaluate and assess NNLM outreach and education programs, services, and sub-awards
- Upgrade and update the NEC Data Warehouse to streamline data workflows, provide clean accurate data for analysis, and explore opportunities for additional data sources and tools to feed into reporting dashboards
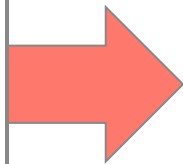
NNLM Data Warehouse Transfer

- Migration of the NEO Data Warehouse to NEC servers is complete

- Building on the great work done by Deric Ruhl and the NEO team, the NEC Data Warehouse aims to follow best practices in software development
  - Code management and versioning through GitHub
  - Staging and Production environments
  - Continuous deployment of code changes with automated testing (in progress)
  - Move to a Python code base (in progress)

- We will enhance the NEC Data Warehouse to...
  - Adapt to the new CiviCRM system
  - Address changes in RML configuration
  - Improve flexibility to address data requests from ROCs
  - Maintain flexible and secure data feeds for dashboards

NNLM Beacon Implementation
Development of the InvenioRDM Platform

INVENIO
Powering Open Science

Framework
Open Source framework for large-scale digital repositories

RDM
Turn-key Research Data Management repository

ILS
Integrated Library System

Free Open Source Software

Invenio is Free Open Source Software supported by a committed community of multidisciplinary institutions.

Code | Docs | Examples

Friendly and Responsive Community

Although Invenio was born at CERN, its community is growing bigger every day. Talk to the team now in our chatroom or forum.

Chatroom | Forum | Get Involved | Events

The "Safe bet"

Invenio community has been around for 20 years. **Solid services** have been built on top of it to ensure long-term confidence.

Live services | Products

🔍RDM

The turn-key research data management repository

🚀 Coming soon - summer 2021

Status
Follow the latest project status.

Roadmap
We intend to be ready with a first release summer 2021.

Demo
Demo of InvenioRDM showing latest development state.

Forum
Join our project forum and collaborate.

Chat
Find all the partners in our official chatroom.

Code
Have a look at InvenioRDM code evolution.

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https://inveniosoftware.org/products/rdm

NNLM Personas

NNLM Member Organization Types

General public & public libraries

Faith-based organizations

Higher Ed

Emily Trinidad
Patient

Rachael Pereira
Librarian
Research Impact & Bioin...

Thomas "Tom" Movell
Patient

Simran Gupta
Physician Scientist
Professor of Medicine in Gastroenterology

NNLM Stakeholders

EVALUATION & CONTINUOUS IMPROVEMENT CORE

Develop strategies and standardized approaches to assess the impact, efficacy, and value of NNLM activities, services, and resources, and support and catalyze continuous improvement.

🔍 Key Initiatives

Operationalized feasible, actionable, and meaningful metrics

Evaluation Toolbox

Qualitative analysis

Red carpet workflows

Using our Communities of Practice (w/CCB)

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🔍 NNLM Evaluation Working Group

- Composed of **Evaluation Champions** nominated from each ROC
- Purpose:
  - Discuss and provide feedback on NEC initiatives (including, e.g., the Evaluation Toolbox and education & training initiatives)
  - Build evaluation capacity through fostering a supportive community of practice
  - Identify opportunities for collaborative continuous improvement and for enhancing a data culture across the Network
- Meets first Thursday of every month
- Agenda and notes available on Confluence

🔍 Enhancing REDCap Workflows & Dashboards to Inform Decision-Making

Launch Priority Areas

- Transfer existing surveys (e.g., training, subaward reports, and scorecards) from NEO to NEC
- Partner with NTO, OET, and the EWG to update the training survey
  - Create core set of standard questions, plus menu of additional items tailored by training type
  - Expand number of questions focused on training outcomes & diversity, equity, and inclusion
- Build interactive Tableau dashboards to inform programmatic & strategic decision-making and pilot leveraging NLP to analyze open-ended responses

REDCap

🔍 Standardizing & Centralizing Reporting Workflows

Launch Priority Areas

- Partner with OET and EWG to standardize, centralize, and simplify mandated reporting workflows, e.g.:
  - Staff & subawardee activity reports
  - RPPR supplemental data requests
- Disseminate training and support materials to facilitate data collection and entry
- Build Tableau dashboards to ensure data are accessible and available to inform strategic management

🔍 Additional ECI-C Launch Priority Areas

- Consultative Support:
  - Offer **drop-in hours twice monthly** for support with developing strategies, metrics, tools, and guidelines to plan, evaluate, and assess outreach and education programs, services, and subawards
  - **Red carpet ("deeper dive") consultations** focused on comprehensive evaluation plans, logic models, theories of change, etc.

- Continuous Improvement Community of Practice:
  - Develop interactive training session on **Results-Based Accountability (RBA) Turn the Curve** framework, used to assess performance metric trends, explore root causes, identify essential partners, brainstorm and implement strategies to "turn the curve," and monitor progress
  - Call for volunteers planned for September/October 2021

COMMUNITY & CAPACITY BUILDING CORE

Design approaches to better understand the NNLM network, including underrepresented populations or persons who experience health disparities, and act on this knowledge to sustainably build community and capacity at all levels.

Key Initiatives

NNLM Networks

Enhanced capacity of members

Building Communities of Practice (w/ECI & all)
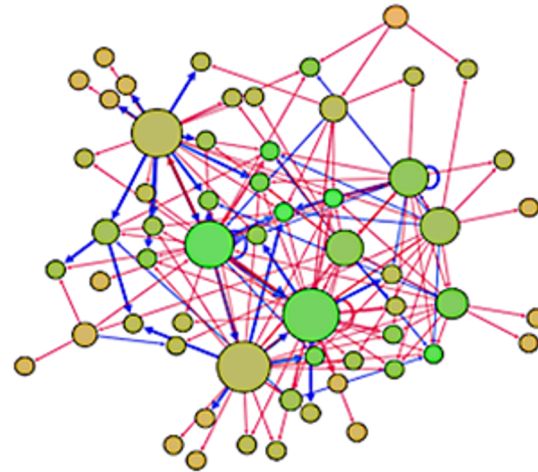
Participation in the Network

Responsive continuing education & workforce development

Community, Network, & Capacity

Core elements of a Community of Practice.

Network visualization.

Understood what a logic model is	87.9%	....	100%
Felt confident in creating a logic model	66.7%	....	90.9%
Understood what program evaluation is	90.9%	....	96.9%
Felt confident in creating a program evaluation plan	69.7%	....	87.9%
Understood what fidelity assessment is	78.8%	....	97.0%
Felt confident in creating a fidelity assessment plan	51.5%	....	69.7%
Felt confident in developing data collection tools	72.7%	....	87.9%

Evaluation metrics before/after working with the NU Evaluation Center.

Year 1: Key Deliverables

1. Evaluation Capacity Survey

2. Key Informant Interviews

3. Trainings

Year 1: Key Deliverables

1. Evaluation Capacity Survey

   ○ **Team**: Gregory/Erik

   ○ **Goals**: Baseline assessment of evaluation knowledge, interest, and experience of members in NNLM network

   ○ **Next Steps**: Presenting draft survey to NNLM Evaluation Working Group on July 1st

Year 1: Key Deliverables

2. Key Informant Interviews

   - **Team**: Amy/Rayna

   - **Goals**: Define community and networks within NNLM, identify ideal attributes of successful networks

   - **Next Steps**: Presenting draft interview guide and proposed network survey questions to NNLM Steering Committee on July 13th

✳ Year 1: Key Deliverables

2. Key Informant Interviews

   o Proposed Metrics
     for Organizational
     Network Survey

Level	Construct	Measure(s)
Individual	Demographics	Organization Size, Type, Clientele Demographics (e.g., % Black, % Indigenous), Location
	Services	What is currently being provided to clientele, what could be provided with partners, what would they like to be able to provide in the future
Network	Name Generator	Identify all informal and formal partners from roster
	Edge Interpreter	Length of partnership, characteristics of partnership
Contextual		Perceived competitiveness/collaborativeness

Year 1: Key Deliverables

3. Trainings

   - **Team**: Leah/Esrea

   - **Goals**: Build capacity within NNLM to conduct and interpret evaluation, promote culturally competent approaches

   - **Next Steps**: Meet with NTO and EAT to ensure complementary activities within NNLM before pitching training series

✳ Capacity Building

- Continuing education
- Workforce development

Administrative & Infrastructure Core	• Using Personas for user-focused design (B) • Best Practices in Research Data Management and Data Sharing (B) • 10 Simple Rules for Data Cleaning (B) • Project Management (B) • Interactive dashboards from soup to nuts: Excel, Tableau, and BI tools I & II (I) • Analyzing unstructured data (A)
Evaluation & Continuous Improvement Core	• Principles of community-engaged evaluation (B) • Moving Beyond Satisfaction Surveys (A) • Understanding the Logic behind a Logic Model (B) • Equitable evaluation (I) • Evaluating & Visualizing Return on Investment (A) • Subaward Engagement: Strategies for soliciting timely and comprehensive evaluation data from sub awardees (I)

✳ Capacity Building

- Continuing education
- Workforce development

Community & Capacity Building Core	• Introduction to Communities of Practice (B) • Principles of Community Building (B) • Community Building Facilitator Training (A) • Organizational Alignment (A) • Introduction to Strategic Planning (B) • Cultural Competency Certification (I)
Dissemination & Impact Core	• Accelerate the Dissemination and Impact of Your Research Findings (B) • Creating an Effective Dissemination Roadmap (B) • Communicating and Disseminating Evidence to Policymakers (A) • Media Engagement 101 (B) • Powerful Presentations (B)

DISSEMINATION & IMPACT CORE

Establish robust dissemination practices and assess NNLM's impact.

Key Initiatives

NNLM Beacon: Open and FAIR infrastructure (adoption & use)

Active dissemination

NNLM Impact Reports

BeFAIR and CARE

DataViz Challenge

NNLM Beacon

An openly available online repository of outputs from NNLM.

Coming soon!
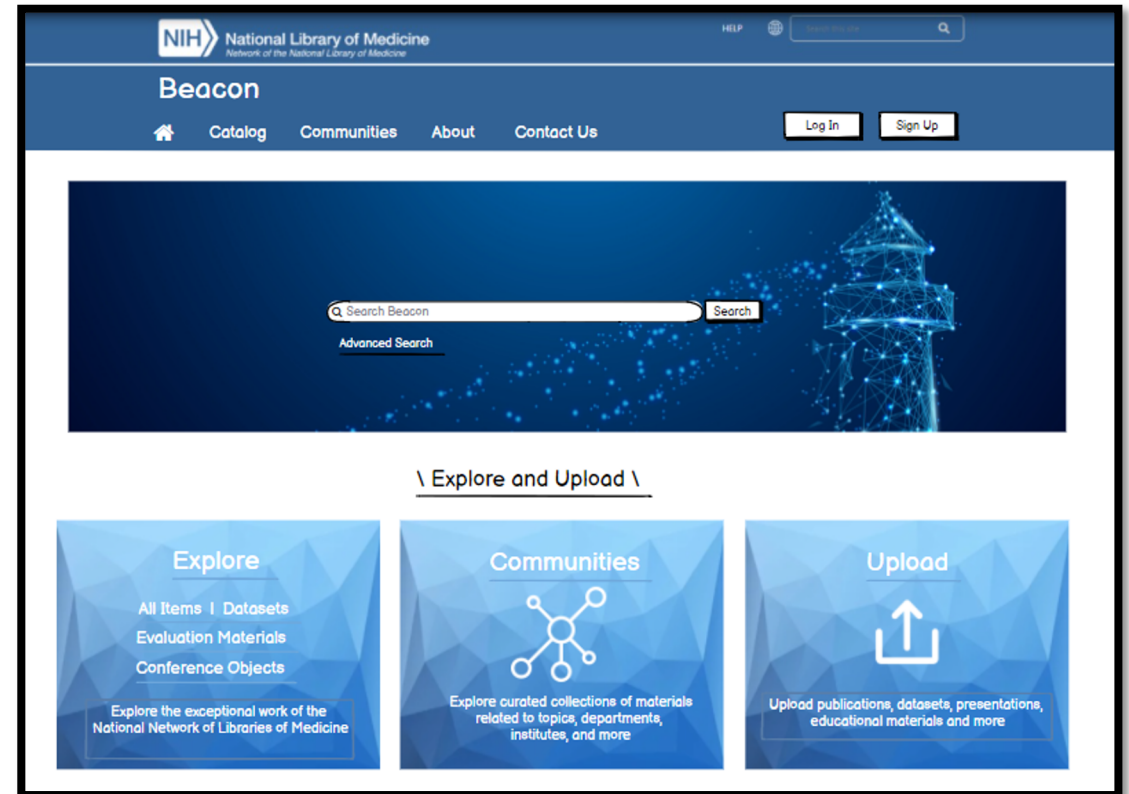
Image: Wireframe for repository

How can NNLM Beacon work for you?

Hospital Librarian
"*As a professional who supports both physicians and patients, I can look to NNLM Beacon repository to find information on serving underrepresented communities. This could include the results of projects that have been funded by the NNLM on this topic as well as consumer information on where to find health resources in the community.*"

NNLM Regional Library
"*As our RML creates programming, we can easily find and access evaluation materials in the NNLM Beacon to evaluate programs and understand our impact goals from the outset of the program. We can find examples of successfully funded project plans to improve our submission requirements for the projects that we fund.*"

Community Member
"*I can use NNLM Beacon repository to find helpful materials such as videos from past NNLM symposiums, discussion questions for health-related book club meetings, and past blog posts on health-related topics.*"

NNLM Member Organization
"*As we prepare our materials to apply for NNLM funding, we can look to NNLM Beacon repository to find example evaluation plans, resources we can use to evaluate and communicate our work, and even share our project outputs in a FAIR manner to enhances access and impact.*"

Features for NNLM Beacon

Disseminate work broadly

Assign unique DOIs

Pre-formatted citations

Guaranteed preservation

Visibility stats and altmetrics

Curate your community

Follow other members

FAIR CARE Rubric

Educational Offerings

- Working with the NTO and the Education Working Group to better understand options for offering classes to NNLM members and beyond

- Working on submission for classes on:
  - **Dissemination in Action.** Equip participants with the knowledge to create better dissemination strategies and inspire compelling impact statements.
  - **Charting a New Course**. Covers top principles for effective data visualization and provides a template for 28+ charts in Excel

RDM: Data Sharing and Publishing

Dashboard / My courses / Data Sharing and Publishing

Start Here

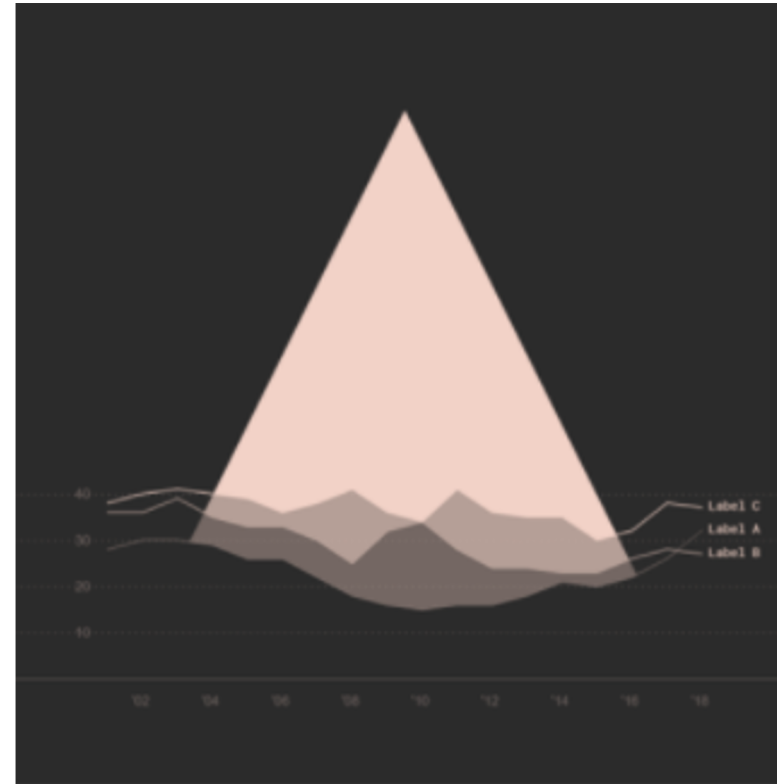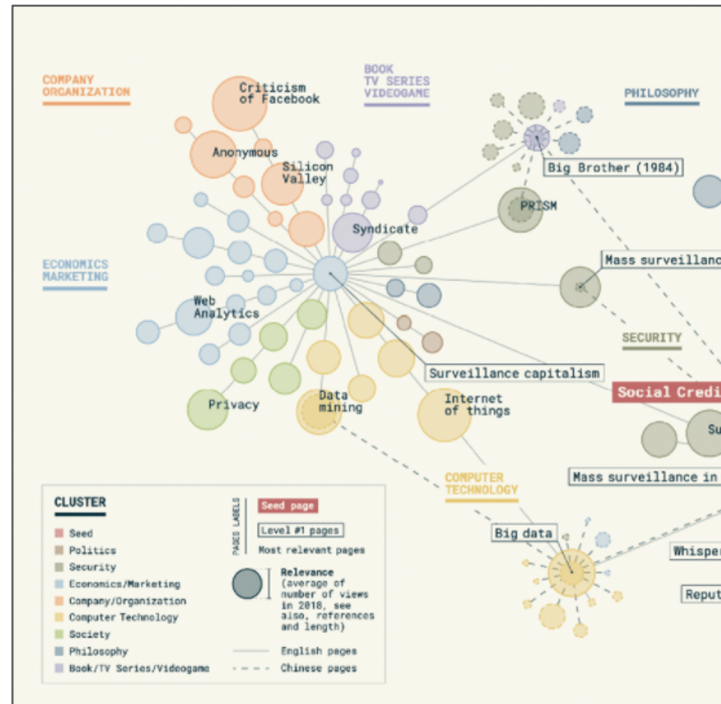Research Data Management On-Demand

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Objectives:
1. Articulate the FAIR data principles
2. Explain the importance of research reproducibility
3. Describe the concept of "open data" and challenges for sharing biomedical research data
4. Explain data sharing incentives, data citations, and data journals

Data Visualization Competition
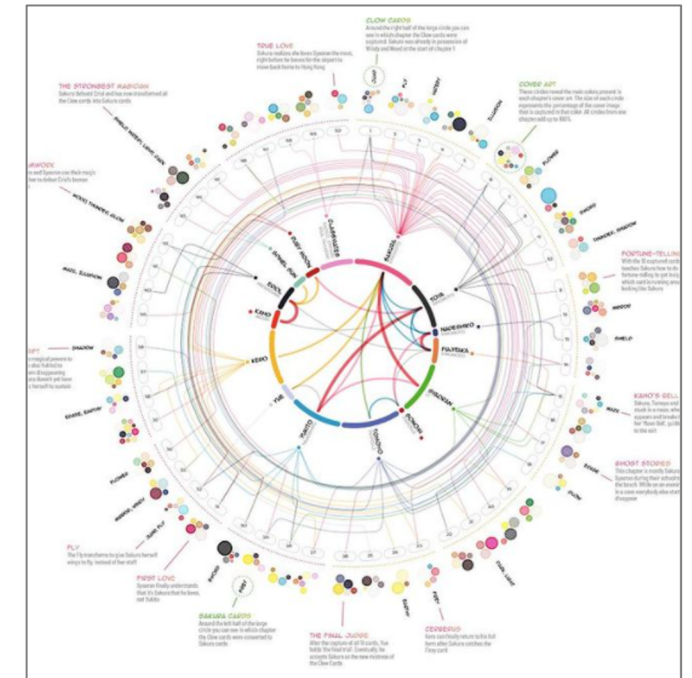
Coming in Year 2

Timeline and wrap-up

	Start-Up	YR 1	YR 2	YR 3	YR 4	YR 5
Administration	✅NEC start-up & operations	🔁Communications 🔁Advisory Council				
Digital Infrastructure	✅Data transfer ✅REDCap	🔁Data workflows 🔁Dashboards	NNLM Beacon			
Frameworks		🔁Systems-Informed Empowerment Evaluation (SIEE), 🔁Communities of Practice (CoP)				
Inclusive communication		SOPs, Plain-language summaries, ✅ Newsletter, 🔁Website				
Evaluation and reporting workflows		🔁Surveys, Continuous improvement, 🔁Activity reporting, 🔁NNLM impact reports, 🔁NLP projects				
User-focused evaluation support		✅Office hours, Welcome Kit, Webinars, 🔁Evaluation Toolbox				
Better understanding of NNLM members		🔁Network analyses, 🔁Mixed methods projects				
Capacity Building		🔁Training, peer-mentoring, speaker series, symposium, etc.				
NNLM Personas		Data gathering, feedback, testing, dissemination				
Novel metrics & tools		🔁FAIR-Care rubric	DataViz Challenge			
Dissemination		Dissemination in Action Guide				
Dissemination		Publications, presentations, etc.				

✅ completed/up and running

🔁 currently in progress

We love to collaborate and welcome you and your teams to join us on any of these projects or on something new. Collaboration can happen across all NEC core areas, through the EWG, on specific projects (Personas, the FAIR-CARE ruric, presentations and publications, and more). We look forward to working with you! nec@northwestern.edu

Thank you!
Any questions?

nec@northwestern.edu

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