

## **Red group discussion –**

### **1. Roles for Librarians**

Librarian and scientist stories

-CIC sharepoint?

Hive mentality

Work with others who have done it

Data life cycle/data management /get involved in the process earlier

-vocabulary to explain

Research assistant – embedded/research liaison (team member of research)

Creators/Workshops for best practices

Learn from social science data

-technologies that leap frog

Connection Development/partner/proactive

-mother ship insights

Role as Publisher

Conduits to information/one stop shopping

-make contacts

Education awareness

### **2. Emerging Areas**

Workflow support services – best practices

-whole infrastructure

Other analogs/borrow from/compare to

Inventorizing of data sets/discoverability

Project management and helping with problems relating to data

Metadata specialists – help with metadata at the beginning, i.e., mark-up

Access, repository for things that can be shared

Role for visualization and analysis

Proof of concepts

### **3. Continuing ED needs**

Needed in this transitional

-certificates in curation (online courses/ALA/SLA)

-tools

-subject expertise?

Bar for comfort in technology must rise – have to make them

-continuing education

Need incentives for librarians (vs. requirements)

Multi-day Web 2.0 workshop – encouraged to come up with examples of use

Local workshops: tech show and tell with outcomes, POC brown bags

CIC VIVO – networking

-more interconnected network/tools

Figure out how to describe what librarians can bring to the table and how to articulate that clearly and what kind of vocabulary do we use?

Core platform to build on that is customizable with RDF, etc.; with tools

#### **4. Things CIC can do:**

Stories – CIC Librarians and Scientists successful collaborations for folks to point to

Workgroups to establish best practice models for discipline specific data curation. Take the tools back to your institution. Web site examples workshops, what can you learn from, train-the-trainer

Macro understanding and buy in

-how to engage/promote/make aware

-pinpoint centers of excellence as exemplars

Bring attention to Cutting Edge things (site/education)

CIC Vivo – more interconnected network tools

## **Green group discussion –**

### **1. Roles for Librarians**

Collaboration with scientists

-impart our skills, expertise, and philosophy

Collaboration within and across institutions

Team thinking

Partnerships in other sectors – library, institution, national, global, private sector level

Embrace digital science

Consultative role

Arbitrate archival data management/metadata

Break down barriers between/integrate library departments/units

-morphing of traditional library units

Promotion discovery citation tools

Integration of archival lit.

Think interdisciplinary

### **2. Emerging Areas**

Promote integration of archival data with data cataloging non-textual data

Preservation, data management stewardship

Tool development (repositories, search/discovery)

Partnerships at campus level; cyber-infrastructure, academic computing, vice chancellor for research, provost, chancellor level

IP policies and practices at all levels

-intellectual property; patents

Portability and transferability between disciplines – best practices

Deal with/manipulate our information space

-some commercial

### **3. Continuing ED needs**

Questions about value of subject expertise – do not overemphasize

Library schools – attract students with tool development skills

Collaborate with CS/IT students/faculty

Changing definition of library faculty (librarian)

Mechanisms – giving mid-career librarians and library staff to a higher skill level

- institutes, summer courses, continuing education

- CS programs emphasizing information technologies

- financial incentive for participating

### **4. Things CIC can do:**

Dealing with IP issues

Cleaning house for best practices, sharing technologies, methodologies, collection policies

Assessment programs

Education outreach programs for researchers

Communications conferences

Interaction with provosts

SDR like centralized repositories

- speed up tool development

Datanet proposal

## **Black group discussion –**

### **1. Roles for Librarians**

Embedded in earlier part of research process

- process not product

Many science librarians have not been integral part

Many “people” work independently

More time when part of team

Teaching new formats

- info literacy

- data curation literacy

Co-pi

Educate administrators and colleagues of work/time/technology

Gathering data from people who may not want to share it

Communicating

- establishing priority/claim/ownership while still disclosing data

- gaining trust

IP – questions; education (students citation) is key

## **2. Priorities**

\$ talks, administration talks → listen to most vocal vendors, IT  
Institutional strengths (e.g., PU = agriculture, engineering, etc.)

People with passion, energy, (and time)

Creation of metadata

Collaboration zone (“people hubs”)

Automate work for users

We know databases

-we can harvest data about our users

Interoperability between databases

## **3. Continuing ED needs**

Hire people with other skills

Acknowledge people with skills and making use of that

Grow your own

Part of job requirements

Who does the “work” (day to day) when off taking classes?

Research fellowship (with financial support)

In house facilitated instruction

Certification (i.e. A H Prof cons. health) [voluntary]

Fairness to new people getting all the “new” work

## **4. Things CIC can do:**

Shared open source software for world (Vivo)

Compare new developments for value

“Hive” mind

More than just “traditional” roles... maybe an e-science (committee/list/both)

~61 – 62 CIC committees

-multiple (?) groups

Not disrupting research routines and procedures

Faculty bring other faculty along

## **Blue group discussion –**

### **1. Roles for Librarians**

ID data resources/service needs

New data resources

Participate in [science] workflow (how to scale?)

Information architects; develop new tools

Tools to create metadata

Capturing data before it's finished product

Marketing/PR for new roles

Presentation and access requirements (structure)  
Advocate for data curation/data management policy development  
Partner with IT on similar problems/efforts  
Skills to keep current models  
Facilitate and limit access (e.g., intellectual property, data issues)  
Support for virtual organizations

## **2. Emerging Areas**

Apply e-science principles to own research  
Build new ontologies/taxonomies  
Participate in research funding life cycle  
Develop and enforce standards  
Collaborations records retention/admin.  
Build programming skills  
Discover small science datasets  
New or not?  
Data literacy  
    -informatics instruction versus information literacy

## **3. Continuing ED needs**

As consortium, much can be offered (CE)  
Subject background → credibility, [mea...?] to expand/retool knowledge  
Grad students – informatics training (metadata generation, data scientists)  
CIC/CLIR data science post doc fellowships?

## **4. Things CIC can do:**

Solicit input/study from scientists/researchers  
Facilitate/fund env. Scan of CIC institutions  
Coordinate tool developments/training  
Share cyber-infrastructure tools within CIC (ex. Nauoltob)  
Model desired behaviors  
Sharing successful eScience projects  
    -dissemination, best practices, training within CIC by member institutions  
Librarians/scientists/IT conference  
Librarian/campus IT –forum for cyber-infrastructure discussion  
Current awareness – share opportunities/successes  
Lobby funding agencies  
Teams – lib/faculty/IT joint projects needed by CIC, could be grant-related, report to CIC meetings  
Progressive agenda for future meetings – focus on success/collaboration  
Explore/establish core set of tools/services for CIC institutions, specifically for small science problems  
Foundation level/expectations in light of institutional differences