A pluggable, community-driven solution for reducing admin burden on researchers, improving business intelligence for management & reducing friction in data sharing for all.
Agenda

❖ What is CASRAI?
  – What problem do we solve?
  – Alternate solutions – is there another/better way?
  – The CASRAI solution
  – Who is involved?

❖ Where are we now?
  – Status – National Projects
  – Status – Other Projects: National & International

❖ Where are we headed?
Information Sharing Landscape

**Researcher with:**
- Other researchers
- Team/students
- Own/other institution admin
- Own/other libraries
- Publishers
- Non-academic collaborators
- Potential funders
- Confirmed funders
- Public

**Institution with:**
- Own/other researchers
- Faculty admin
- HR/Finance
- Publishers
- Potential funders
- Confirmed funders
- Industry partners
- Other institutions
- Public

**Library with:**
- Own/other researchers
- Research services office
- HR/Finance
- Publishers
- Potential funders
- Faculty admin
- Other libraries
- Data centres
- Public

**Funder with:**
- Other funders
- Funded researchers
- Unfunded researchers
- Institutional grantees
- Industry grantees
- Publishers
- Government
- Public
The Problem (1)

1) Information is digital
   - text, images, video, audio – all data

2) Databases hold everything
   - Forget the name: HR, Finance, CRIS, IR, journal, grants or reporting web-forms – it’s a database

3) Databases are islands
   - good default for security and single-purpose – bad for sharing
The Problem (2)

1) Mapping is a bad relationship
   - Brittle, too-late, expensive

2) Policy ownership has atrophied
   - Policy has come to think that information is an IT problem – have off-loaded capacity

3) Perfect is the enemy of good enough
   - 100% common is not the goal; strive for increments of good while working to best
- Limitless options
- Proprietary or open source
- Security vs sharing
- Product silos

- Things we need data about
  - What data we need for each thing?
  - High commonality but siloes have developed

- Business processes
  - When do we need what data?
  - Local first – all else a risk of distraction

- Storage Technology
  - Limitless options
  - Proprietary or open source
  - Security vs sharing
  - Product silos

- Connector Technology
  - XML support is NOT enough
  - Mapping is brittle and expensive
  - Buttons & Beacons!

- Business Context
  - Things we need data about
    - What data we need for each thing?
    - High commonality but siloes have developed

- Business Terms
  - Limitless options
  - Proprietary or open source
  - Security vs sharing
  - Product silos
Obstacles

Software Silos
- Purpose-built Tools (CRIS, IR, HR, Finance, Webforms)
- Same fundamental concepts stored differently
- Build-first, map-later (maps as duct-tape)
- XML support not enough

Tool-centric Thinking
- If we all used ‘tool X’ we wouldn’t have a problem,
- ‘3rd tool’ syndrome – bridge any two by building (and maintaining) a 3rd
- Portal-distraction (3rd tool symptom)

Boundaries
- Legislation/policies
- Processes
- Disciplines
- Organizational Units
- Sectors
- Regions
- Countries
### Understanding Information Flow

| **Humans Lead** | Need agreement on contextual scope  
| | Need agreement on terms and supporting elements  
| | Need agreement on labels, definitions, structures, identifiers  
| | All to *document* the information requirements of policy  
| **Machines Obey** | Need encoded logic and reasoning of above agreements,  
| | Need encoded physical data model for storage  
| | Need encoded physical data model for exchange  
| | All to *implement* the information requirements of policy  |
Alternative options

- Find another layer to reduce the ‘problem surface’
  - Option: we all agree on a single portal
  - Option: we all agree on a single software product
  - Option: we all agree on a single database design

- Rely on mapping
  - Expensive: repeat analysis/dev costs for each mapping target
  - Brittle: change on either end breaks the mapping
  - Missed opportunity to agree

- Do nothing
The CASRAI solution (1)

- **Model**: Non-profit membership organization
  - founded and head-quartered in Canada
  - growing international participation

- **Mission**: Improve data flow within/between orgs
  - Reduce admin burden
  - Reduce information friction
  - improve business intelligence

- **Method**: Convene – Agree – Connect
  - be least ‘prescriptive’ - reduce the ‘agreement’ surface
  - ‘plug’ the CASRAI approach into your projects – don’t reinvent
  - maximize ‘local’ freedom of implementation
The CASRAI Solution (2)

❖ Membership structure inclusive of key stakeholders
  – Research Institutions – RSO, Library, Evaluation
  – Research Funders – federal, provincial, foundation
  – Research Solutions Providers – Software vendors, Publishers
  – Research Partners– Scholarly Societies, Professional Associations, Ministries

❖ Local-first, Nationally integrated, Globally connected
  – Prioritizes effort appropriately
  – Strategic members set priority, Review members comment/validate

❖ Project-driven avoids ‘scope-creep’ and ‘ocean-boiling’
National Projects: Canada

- **Research Classification**
  - subject experts evolving a common taxonomy for categorizing research investment and activity
  - proof-of-concept project seeking participants

- **Research Impacts**
  - Alberta-led on health impacts
  - Integrating with global initiatives towards harmonization and best practices

- **Funding results Announcements**
  - U15 universities exploring a pilot to reduce admin burden

- **Admin KPI Capacity**
  - Interest Group to tackle topics in a safe forum (sensitive subject)
National Projects: UK

- **Data Management Plans**
  - common, extensible format for exchanging DMPs
  - developing institutional agreement to help guide/inform funder policy

- **Authority File: Organization**
  - developing a common approach to shared governance of ‘authority files’

- **Open Access APC Financial Reports**
  - standards interoperable OA finance reporting

- **Coming up: Equipment Profiles**
Other Projects: National & International

- Acknowledging Peer Review Services in CVs (ORCID)
- Standard Taxonomy for Contributor Roles in Research (Wellcome Trust)
- Snowball Metrics standards (multi-nation)
- Arts contributions to CVs (Sweden)
- CVs and Funding Applications (Portugal)
Get involved

- Join CASRAI
- Plug it into your projects – how do IR systems fit into this ecosystem?
- Implement the dictionary you help create
Thank-you

❖ dbaker@casri.org
❖ casrai.org
❖ dbakerskype
❖ 613-832-0304