WHAT IS DATA LITERACY AT IFRC?

Heather Leson, Data Literacy Lead
“A data-literate organisation is one that shares a culture of data and a strong vision of the future. Most people invested in this vision will have no analytic interaction with data and may never need to.”*  

*Source: Open Data Institute
What is Data Literacy?

“Data Literacy includes the skills, knowledge, attitudes, and social structures required for different populations to use data.”*

Humanitarian Information Managers (IMs) are often very data-skilled. How can we build an ecosystem of data ready colleagues?

*Source: School of Data
Potential benefits of focusing on Data literacy:

- Teamwork / Collaboration
- Increased Accountability/Transparency
- Organizational Effectiveness (reuse, decrease of duplication)
- Financial improvements
- Competencies / Skills
What does data literacy mean for me?

<table>
<thead>
<tr>
<th>Role</th>
<th>Task</th>
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<tr>
<td>IM / Operations/PMER/Health</td>
<td>Deliver projects with information products/Assess project and programme delivery</td>
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<td>Marketing Communications</td>
<td>Excellent data/analysis, narrative for storytelling, brand and fundraising</td>
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<tr>
<td>IT</td>
<td>Assess and support data products/tools, provide infrastructure</td>
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<tr>
<td>Training</td>
<td>Provide e-learning, workshops and technical training</td>
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<td>Manager</td>
<td>Strategic planning, staff development, organization development</td>
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<td>Community served</td>
<td>Provide data, obtain help/services, get feedback</td>
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When we talk about “data”, people often focus on the **skills, tools** and the **process** steps for delivery of data products like a “dataset.”

The ‘Data Pipeline’* is an example of data ready skills. We all have varying levels of know-how.

*Source: School of Data

Graphic Source: School of Data
Disaster Information Cycle

**Information Management**

- **COLLECT**
  - Media, Clusters (multi-sector/multi-organization groups who coordinate response), phone calls, face-to-face meetings, reports (UN, NGO, INGO, Govt), external (to Red Cross) assessments, National Society assessments, pre-existing secondary data (word fact book), baseline/historical data, census data, base map.

- **COLLATE**
  - Clean / store / structure

- **ANALYSIS**
  - Graphs, charts, maps, etc.
  - Answer questions quickly...
  - What are the needs
  - What is the capacity
  - What outputs (activities) have been provided
  - What are the gaps
  - How do we relate to others (coordination).

- **DISSEMINATE**
  - Presentations, maps, printed copies, websites, email, etc. Different products for different needs.

**Evidence Based Decision Making and Reporting**

- **DECISIONS**
  - Based on analysis

- **REPORTING**
  - Situation reports, operations updates, communications products, plan of action, etc.

International Federation of Red Cross and Red Crescent Societies
Fédération internationale des Sociétés de la Croix-Rouge et du Croissant-Rouge
Federación Internacional de Sociedades de la Cruz Roja y de la Media Luna Roja

الاتحاد الدولي لجمعيات الصليب الأحمر والهلال الأحمر

DATA PLAYBOOK: SLIDEDECK 6
Humanitarian Data Teams: Supporting Skills

Humanitarian Business
- Cluster coordination
- Assessments
- Operational planning
- Logistics/Roster Management
- Disaster Risk Reduction
- Response preparedness
- Disaster relief/Recovery
- Thematic Areas of Focus
- Health, Gender and Social Inclusion

Network
- Clients
- Humanitarian agencies
- Development agencies
- Access to skilled people, information managers, database managers, data analysts
- Businesses
- Investors, sponsors and donors

Business Skills
- Leadership
- Strategic business planning
- Marketing & Sales
- Customer relations
- People management & Human resources
- Administration
- Public speaking
- Problem resolution
- Finance and accounting skills
- Delegating tasks
- Motivating team

Soft Skills
- Strategic, proactive, creative, innovative and collaborative
- Curious about data
- Influence without authority
- Problem solver
- Hacker /Maker mindset
Humanitarian Data Teams: Technical Skills

Math and Statistics
- Machine learning
- Statistical modeling
- Supervised learning & Unsupervised learning
- Statistical computing (e.g. R)
- Relational algebra

Data Management
- Data modelling
- Data collection
- Data refinement and cleaning
- Database, SQL and NOSQL
- Parallel databases and parallel processing
- Open Data standards
- API’s
- Hadoop and Hive/Pig

Information Management
- GIS & Mapping
- Survey methodology
- Data analysis
- Finding & using datasets

Programming
- Computer science fundamentals
- Scripting language (i.e. Python, javascript)
- Filtering scripts (i.e. D3.js)
- Web development
- Experience with xaaS like AWS

Communications and Visualization
- Story telling skills
- Translate data-driven insights into decisions and actions
- Interactive dashboards
- Infographics
- Visual art design
- Knowledge of visualisation tools like Tableau, Adobe toolkit
# About the Data Literacy Program

<table>
<thead>
<tr>
<th>1. Connect</th>
<th>2. Learn</th>
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<td>We are connecting the data curious and the data ready across the Secretariat and National Societies.</td>
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<td>The Data Literacy program is creating learning spaces via skillshares, workshops and webinars.</td>
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<th>3. Create</th>
<th>4. Measure &amp; Impact</th>
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<td>Together we are creating sessions, guides, policies, checklists and modules to work with existing programs and projects.</td>
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<td>We are assessing metrics for data readiness and collecting impacting examples.</td>
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Data Literacy Menu

1. Connect
   A. Informal Data Working Group
   B. Local data Stories
   C. Ecosystem Map
   D. Data Simulations

2. Learn
   A. Skillshare sessions
   B. Build with existing Curriculum inside RCRC
   C. Connect with other Data Educators
   D. Excel around the World

3. Create
   A. Data Playbook: templates, checklists, session design, scenarios, and best practices

4. Measure & Impact
   A. Responsible Data Policy/Guidance
   B. Data Readiness Measurement/Competencies
THANK YOU

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