WHAT IS DATA LITERACY AT IFRC?

By Heather Leson, Data Literacy Lead
Data-literate is not the same as data-skilled

“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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<tbody>
<tr>
<td>IM / Operations/PMER/Health</td>
<td>Deliver projects with information products/Assess project and programme delivery</td>
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<tr>
<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, previous secondary data (world factbook), 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 copy
/websites
/email, etc.
different products for different needs.

Evidence Based Decision Making and Reporting

1 2 3
DECISIONS
(based on analysis)

1 2 3
REPORTING
/situation reports
/operations updates
/communications products
/plan of action, etc.

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

**Humanitarian Business 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

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

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