WHAT IS DATA LITERACY AT IFRC?
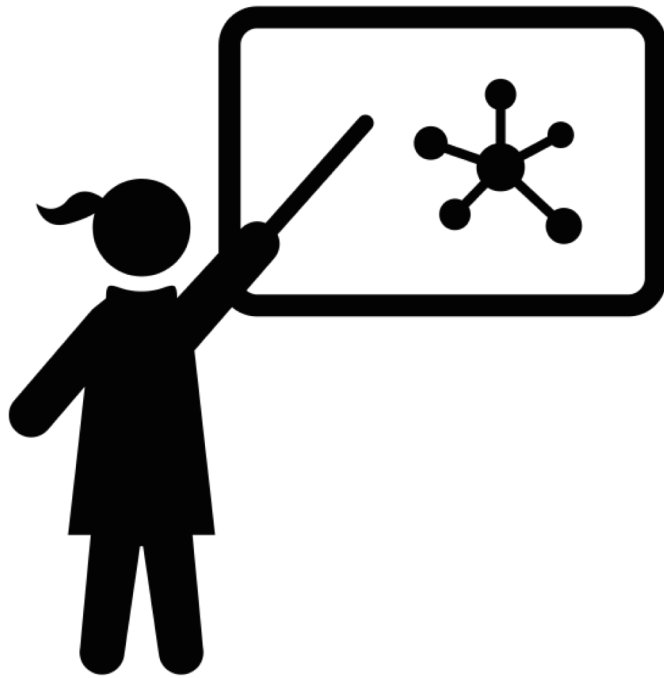
Heather Leson, Data Literacy Lead

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
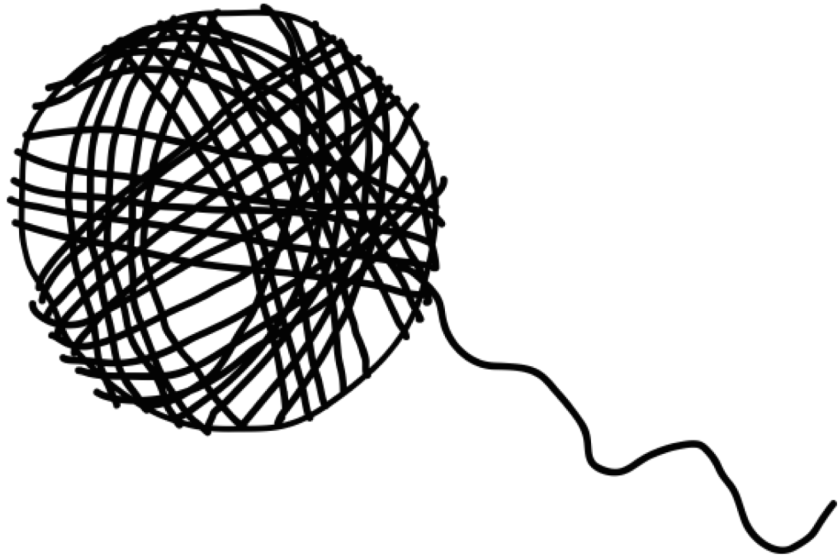
DATA PLAYBOOK: SLIDEDECK 6

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
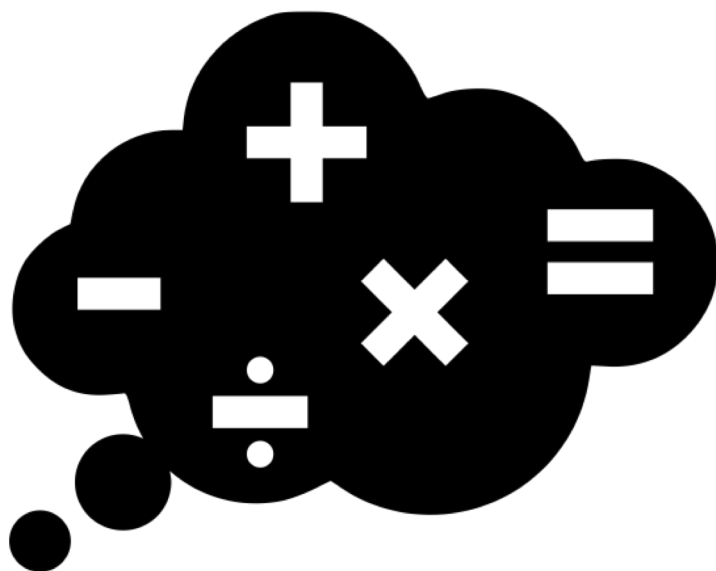
What is Data Literacy?

*"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

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

Potential benefits of focusing on Data literacy:

- Teamwork / Collaboration
- Increased Accountability/Transparency
- Organizational Effectiveness (reuse, decrease of duplication)
- Financial improvements
- Competencies / Skills

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

What does data literacy mean for me?

Role	Task
IM / Operations/PMER/Health	Deliver projects with information products/Assess project and programme delivery
Marketing Communications	Excellent data/analysis, narrative for storytelling, brand and fundraising
IT	Assess and support data products/tools, provide infrastructure
Training	Provide e-learning, workshops and technical training
Manager	Strategic planning, staff development, organization development
Community served	Provide data, obtain help/services, get feedback

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
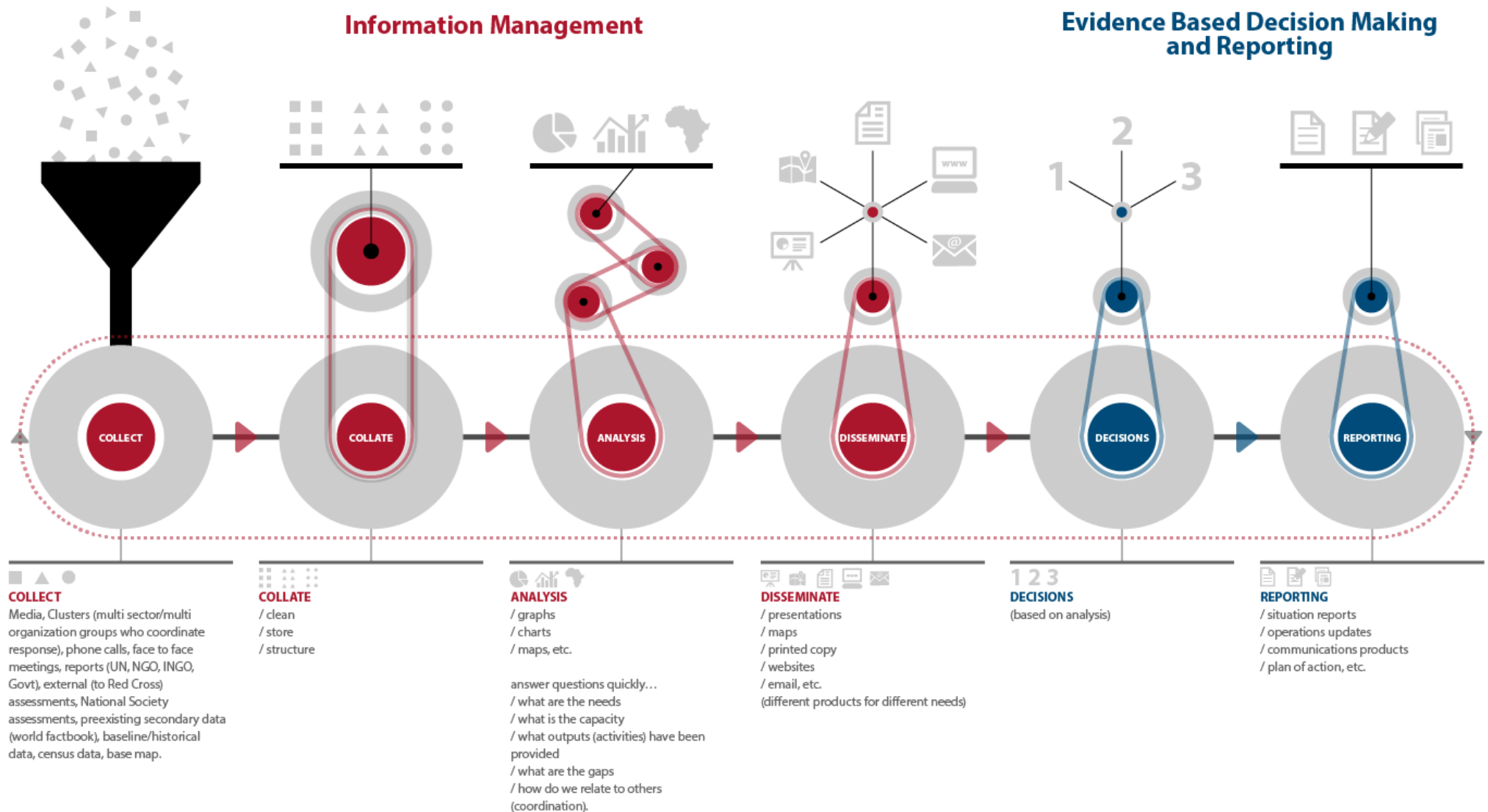
Data Pipeline

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
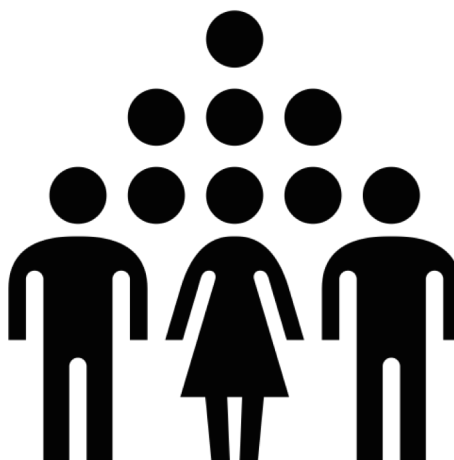
Disaster Information Cycle

American Red Cross

Information Management

Evidence Based Decision Making and Reporting

COLLECT → COLLATE → ANALYSIS → DISSEMINATE → DECISIONS → REPORTING

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, preexisting 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)

DECISIONS
(based on analysis)

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**

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**

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
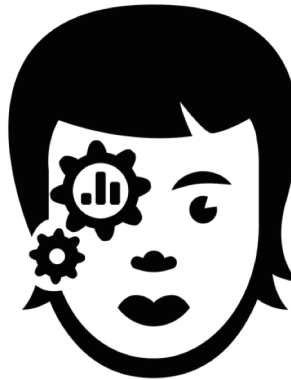الاتحاد الدولي لجمعيات الصليب الأحمر والهلال الأحمر

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**

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

About the Data Literacy Program

1. Connect

We are connecting the data curious and the data ready across the Secretariat and National Societies.

2. Learn

The Data Literacy program is creating learning spaces via skillshares, workshops and webinars.

3. Create

Together we are creating sessions, guides, policies, checklists and modules to work with existing programs and projects.

4. Measure & Impact

We are assessing metrics for data readiness and collecting impacting examples.

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

Heather Leson

heather.leson@ifrc.org
@heatherleson
skype: heatherleson