FROM IDEAS TO ACTION

Leveraging the Data Revolution for Peace and Justice

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DATA LIFE-CYCLE

From Ideas to Action

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Step 1 : Explore Challenge

Identify your challenge and indicate your focus.

Step 2 : Define Project

Create a project by indicating your goals, core questions and information needs.

Step 3 : Map Data

Search for available data sources and assess which data is most critical and relevant.

Step 4 : Design Process

Define your data process and indicate the potential for data-driven innovation.

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DATA RESPONSIBILITY

Assessing Risks

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Step 1

Define your process, i.e. how do you work with data? (data lifecycle)

Step 2

Assess potential vulnerabilities (hazards).

Step 3

Understand risk factors.

Step 4

Define risk mitigation strategies.

Step 5

Learning - as the possibilities of data analytics grow, so does uncertainty about potential risks. Learning from mistakes is essential for keeping your data responsibility strategy up to date.

DATA RESPONSIBILITY

Data in the Project Lifecycle

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Lecture 1 : Complex Societal Challenges

COMPLEX SOCIETAL CHALLENGES

Learning Objectives

- *Differentiate between simple from complex and/or wicked challenges;*
- *Identify and analyse a complex societal challenge;*
- *Recognise how to confront complex societal challenges.*

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(BIG) DATA, BIG PROMISE

Learning Objectives

Lecture 2 : (Big) Data, Big Promise

- *Appraise the concept of (Big) Data and identify its components;*
- *Assess the challenges in applying new types of data for confronting complex societal challenges within the domain of peace and justice;*
- *Recognise and explain the potential of the data revolution for peace and justice.*

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DATA-DRIVEN INNOVATION

Learning Objectives

Lecture 3 : Data-Driven Innovation

- *Appraise the concept of data-driven innovation and indicate its potential for peace & justice (incl. sustainable development and humanitarian action);*
- *Demonstrate the potential for data-driven innovation in confronting complex societal challenges.*

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INNOVATORS FOR PEACE & JUSTICE

Learning Objectives

Lecture 4 : Innovators for Peace & Justice

- *Recognise different possibilities (in particular leveraging organisational data and citizen-reporting) for applying data-driven innovation within the humanitarian sector;*
- *Identify core challenges for organisations trying to apply and/or adept data-driven innovation to support their work towards peace & justice.*

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Lecture 5 : Data Responsibility

DATA RESPONSIBILITY

Learning Objectives

- *Appraise the concept of Data Responsibility;*
- *Assess and identify risks in relation to working with data for peace and justice;*
- *Describe a process for data responsibility and determining adequate mitigation strategies in relation to identified risks.*

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DATA RESPONSIBILITY

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SUDAN: CDR POVERTY MAPPING

Sudanese Government;
UNDP

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SUDAN POVERTY ASSESSMENT USING CDR

Objectives (1)

'Taking this opportunity, the pilot project aims to analyse this mobile phone call data reserve, test its potential to measure development indicators on a regular basis, and build capacity of national institutions to handle big data for regular measurement of key development indicator(s) such as poverty thereby fulfilling data gaps in monitoring development progress in Sudan.'

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SUDAN POVERTY ASSESSMENT USING CDR

Objectives (2)

'Measurements of key indicators generated on a shorter interval will have significant contribution in national SDG monitoring, Poverty Reduction Strategy Paper (PRSP) as well as gauging the United Nations Development Assistance Framework (UNDAF) results. In parallel and under the national development results monitoring umbrella, it will contribute in direct measurement of UNDP projects' progress and effectiveness allowing concurrent adjustments to UNDP's interventions in partnership with Sudan government.'

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SUDAN POVERTY ASSESSMENT USING CDR

Stakeholders & Roles

END USER

- *United Nations Development Programme (Sudan)*

DATA PROVIDERS

- *Central Bureau of Statistics (Sudan)*
- *National Telecommunications Corporation (Sudan)*
- *Ministry of Communications and IT(Sudan)*
- *[Mobile Network Operators]*
- *[Population of Sudan]*

PROJECT IMPLEMENTATION

- *Leiden University's Centre for Innovation*
- *IRB: International Data Responsibility Group*

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SUDAN POVERTY ASSESSMENT USING CDR

Deliverables

(1) *Pilot study on how mobile phone data could provide key development indicator proxies for poverty measuring;*

(2) *Establishment of a long-term national capacity to measure selected development indicators in a shorter time intervals thereby strengthening regular monitoring of SDGs;*

(3) *Framework on Responsible Use of Mobile Phone Data for Poverty Mapping;*

(4) *Workshop on using mobile phone data as alternative / complementary and low-cost source to measure development indicators*

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SUDAN POVERTY ASSESSMENT USING CDR

Roadmap

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PHASE 0 [NOW]

- *Internal Review on Responsible Data Use*
- *Signing of a Mutual NDA for sharing Sample Data*

PHASE 1 [OCTOBER 2016]

- *Feasibility Study on the basis of Sample Data*
- *Review of Outcomes Feasibility Study by IRB*
- *Redefining Project Initiation Document*

PHASE 2 [2016 - 2017]

- *Study on CDR for Poverty Mapping*
- *Framework on Responsible Data Use*

  (together with Internal Review Board)
- *Workshop*

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SUDAN POVERTY ASSESSMENT USING CDR

Phase 1 : Feasibility Study

During the feasibility study [Phase 1] access will be provided to mobile phone data (CDR) from local telecommunications providers for the state of ***Al Jazirah from end 2014****, as well as to household surveys conducted within in this region during the same time period. The study will conduct a first assessment whether and through which procedure the provided mobile phone data could be used to monitor socio-economic variables as a proxy poverty measurement.*

The outcomes of the feasibility study will subsequently be presented to the external review board, which will provide feedback regarding whether and, if so, how to proceed with the project. The feedback will provide simultaneously the basis for redefining the Project Initiation Plan - and therewith the focus and deliverables for Phase 2.

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CONTEXT

Al Jazirah (Sudan)

Al Jazirah is one of the 18 states in Sudan and has a population of nearly 3 million people. The state is considered the home ground of the ruling national authorities and constitute a stable region which is in transition from an oil-based to an agricultural economy.

Al Jazirah is also referred to as the bread basket of Sudan.

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SUDAN POVERTY ASSESSMENT USING CDR

Data Sources & Access

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MOBILE PHONE DATA (CDR)

The Ministry of Communications and IT and the National Telecommunications Corporation (Sudan) will provide access to mobile phone data (CDR) from national telecom operators (estimated coverage: 77%). Remote access to this data (upon a server of MCIT) will be provided to Leiden University after signing a mutual NDA.

DEVELOPMENT INDICATORS (BASELINE)

The Central Bureau of Statistics (Sudan) and UNDP will provide data on development indicators in the form of the following sources:

(1) *MICS 2014 - Selected indicators data that are considered to reflect poverty level;*

(2) *S3M 2013 – Simple Spatial Surveying Method (S3M) in Sudan.*

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SUDAN POVERTY ASSESSMENT USING CDR

Key Concerns

1. *Risks to Local Population Al Jazirah?*
2. *Extrapolation of this case to other regions?*
3. *Risks in collaboration with partners and stakeholders?*
4. *Due Process (mitigation strategy)*
    a. *Access data*
    b. *Data validity*
        i. *Baseline data (household surveys)*
        ii. *Mobile Phone Data (CDR)*
    c. *Rightful interpretation*

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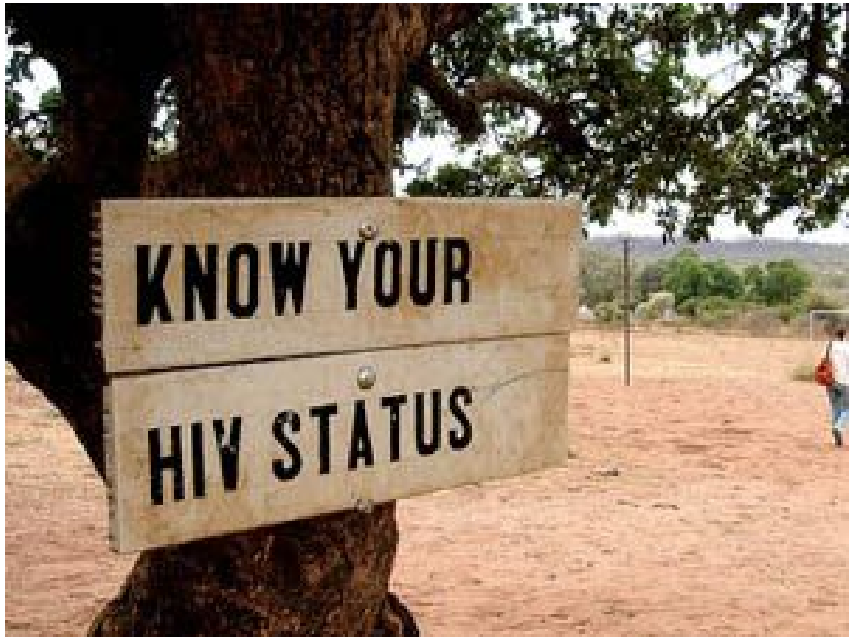
Aids Fonds



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Aids Fonds

Platform enabling Aids Fonds and its partner to bring together different (open and closed) data sources to support organisational processes as well as inform strategic dialogue and decision-making in combating the Aids Epidemic

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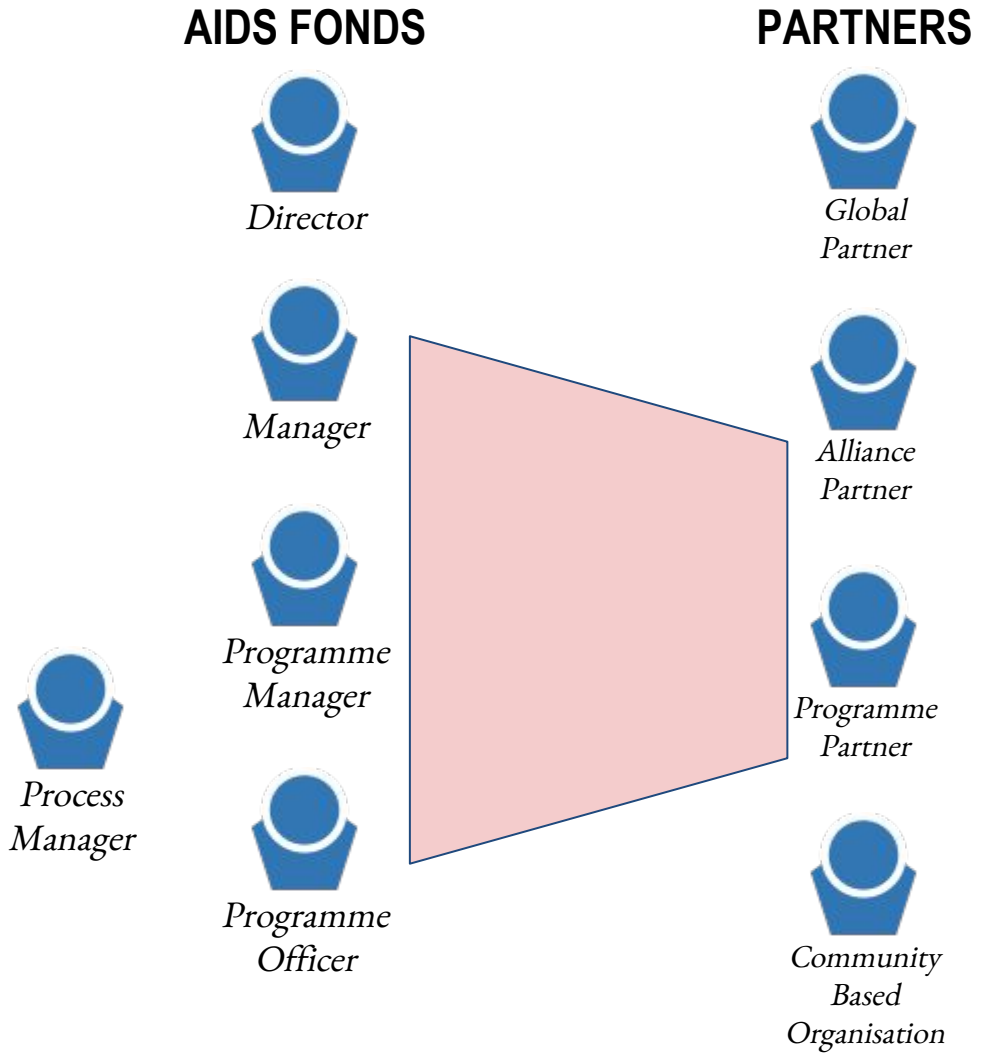
Stakeholders & Persona



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User Scenarios

On the basis of the user stories, we have identified two concrete user scenarios:

(1) *Programmatic Overview : gain an interactive overview into the projects we are currently running and provide more context through additional data sources;*

(2) *Assumption-Based Learning : test core assumptions underlying Aids Fonds work by combining and analysing various data sources on the basis of strategic questions.*

Decided to initially focus on implementing the second (more complex) user scenario.

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Strategic Questions

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Aids Fonds has formulated over 50 strategic questions, stipulating key assumptions underlying their programmatic work as part of PITCH, BtG and RNCF.

On this basis we have selected 10 key questions in order to conduct a data mapping of core information needs (i.e. factors and/or variables) and identify relevant data sources (e.g. IATI; UN AIDS KP Atlas).

For example:

- *Is there a link between decreasing international funding (MIC status) and HIV?*
- *How do barriers to access services vary by group, by age, country, key population and gender?*
- *What is the link between stigma and discrimination and access to services?*

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Data Mapping

The data mapping provided an overview of 12 key data sources to be included into ZOOM. These included controlled data sources which are either:

- *Open* *(e.g. IATI; UN AIDS KP Atlas)*
- *Closed*
  - *Internal* *(e.g. Claire)*
  - *External* *(e.g. Stigma Index)*

On this basis, we have conducted an analysis regarding data interoperability (report) in order to assess how to combine the different data sources and to decide which technical architecture would be most relevant for ZOOM.

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REVIEW SESSION

Interaction & Design

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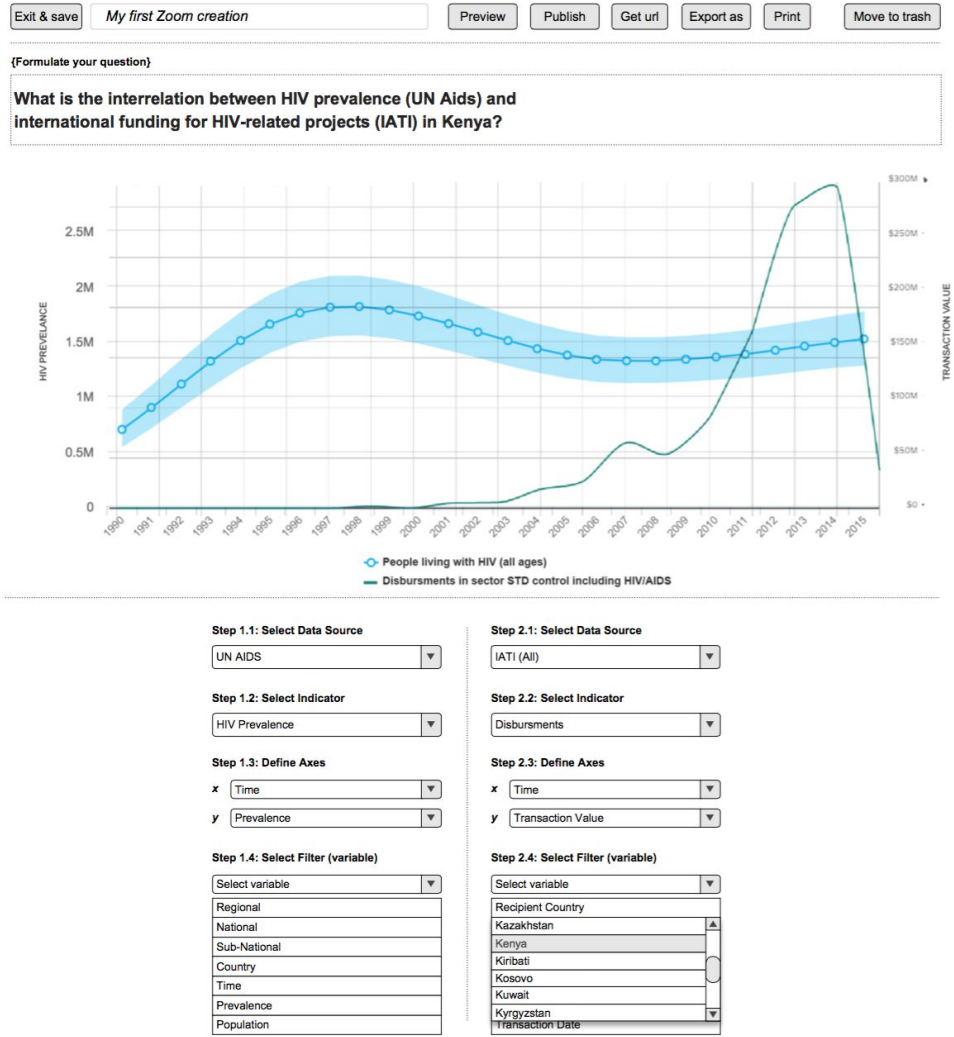

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Data Lifecycle

1. *Acquire / Collect*
2. *Transform / Model*
3. *Clean*
4. *Store*
5. *Question*
6. *Access*
7. *Validate*
8. *Visualise*
9. *Interpret*
10. *Contextualise*
11. *Present / Report*
12. *Share / Advocate / Do Something*

} *Analyse*

[reiterative process]

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POTENTIAL

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https://trello.com/b/uN0fFVxA/data-lifecycle-data-for-peace-justice