DATA RESPONSIBILITY

Leveraging the Data Revolution for Peace and Justice

Thomas Baar (Centre for Innovation, Leiden University)

Credits to Jos Berens and Suzanne van Huijgevoort (Centre for Innovation, Leiden University)

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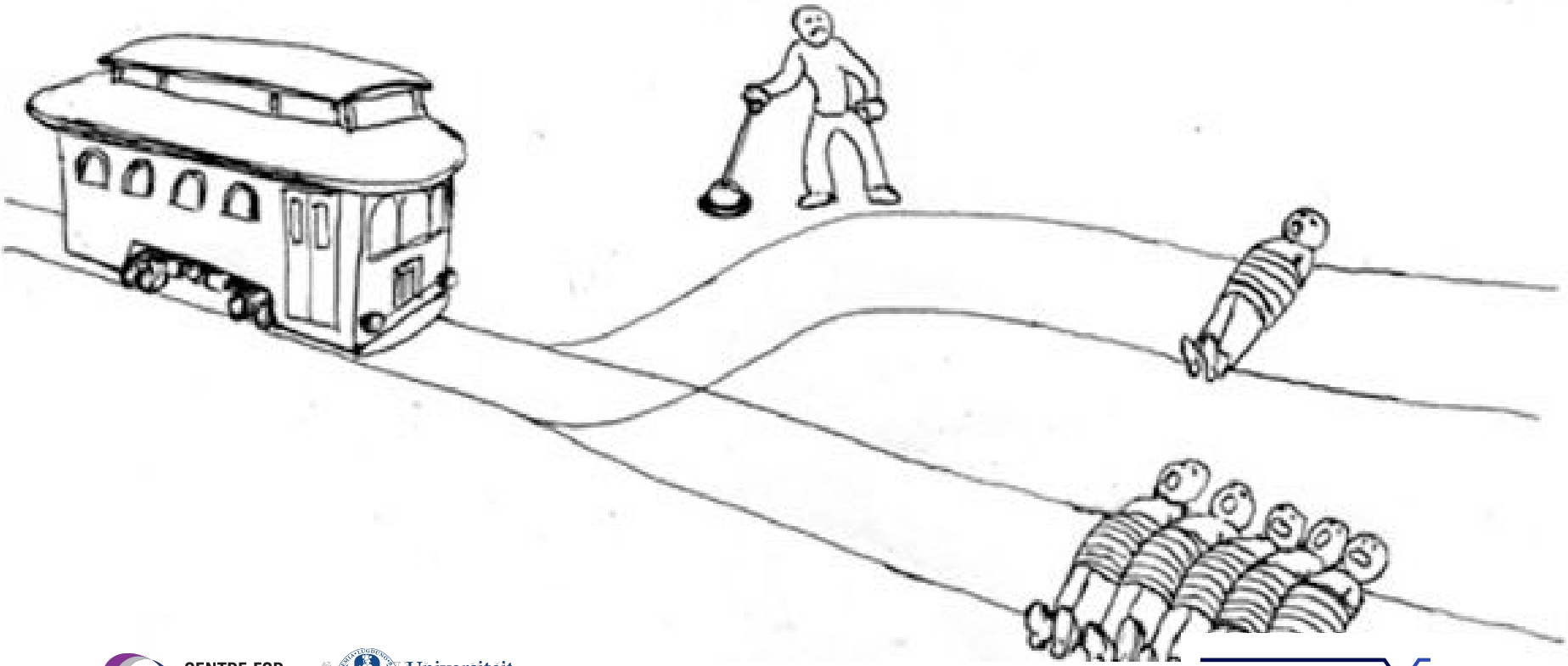

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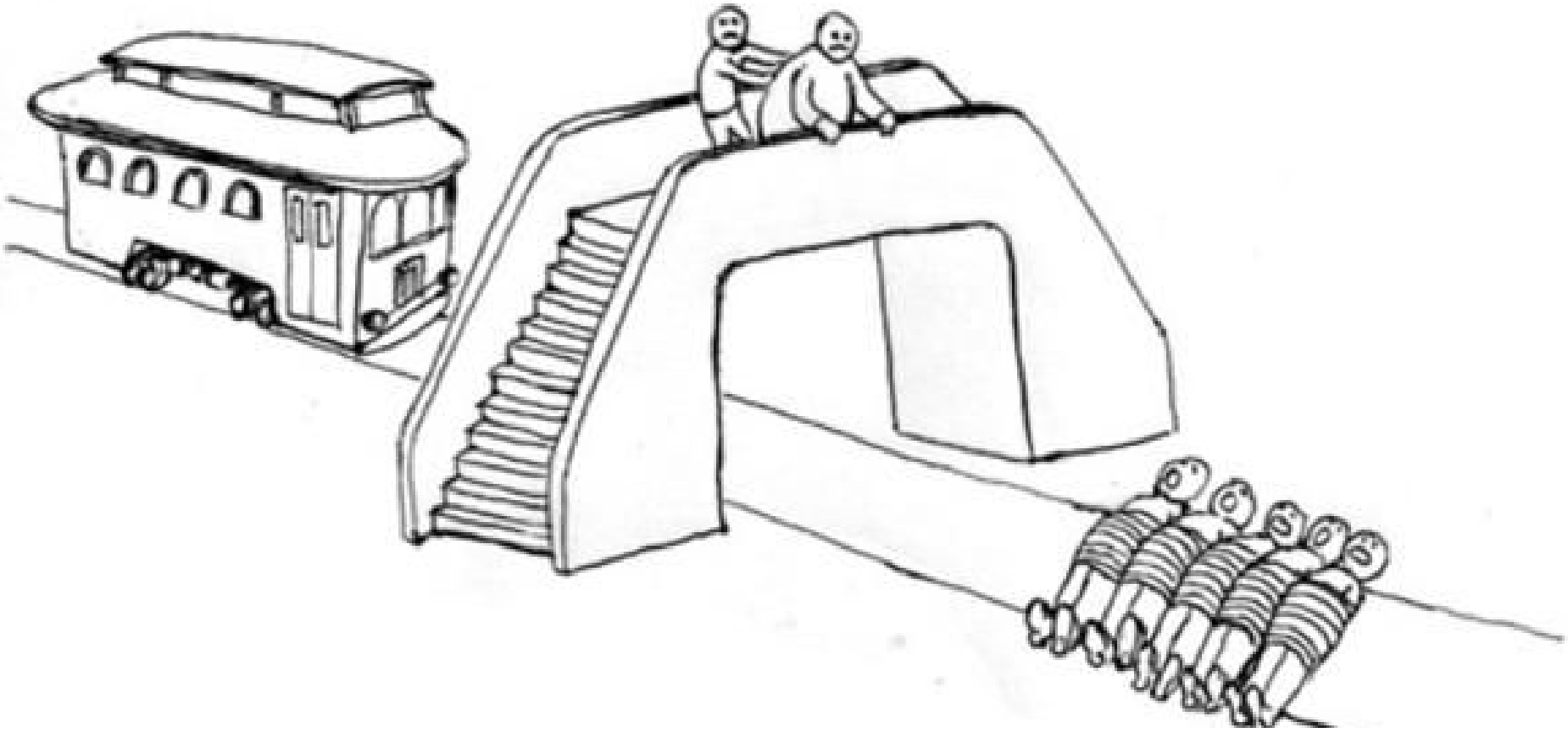

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TROLLEY PROBLEM

What would a kid do?

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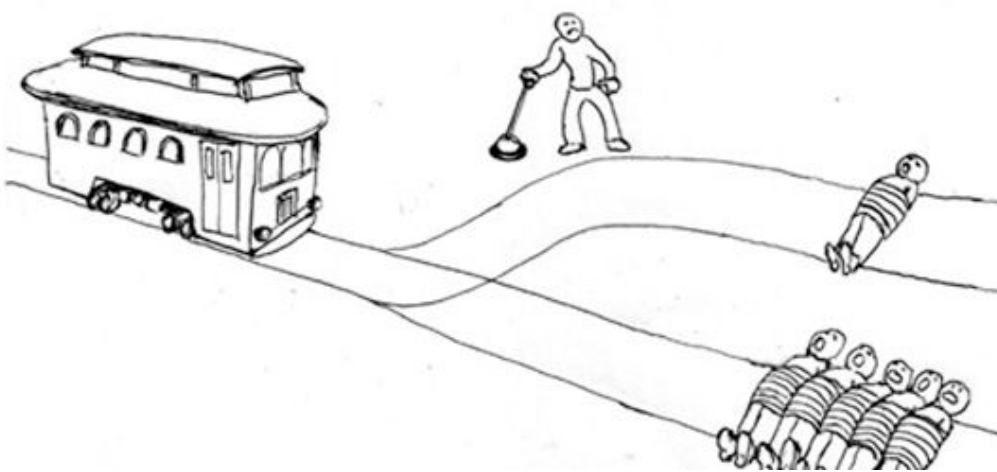
TROLLEY PROBLEM

What would an engineer do?



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RESPONSIBLE INNOVATION

Providing a Definition

RESPONSIBLE INNOVATION

Why and What?

"If you can change the world by innovation today so that you can satisfy more of your obligations tomorrow, you have a moral obligation to innovate today."

(Jeroen van den Hoven)

Responsible Innovation aims to take ethical and societal questions of innovation into consideration at an early stage in order to prevent failure and/or negative consequences.

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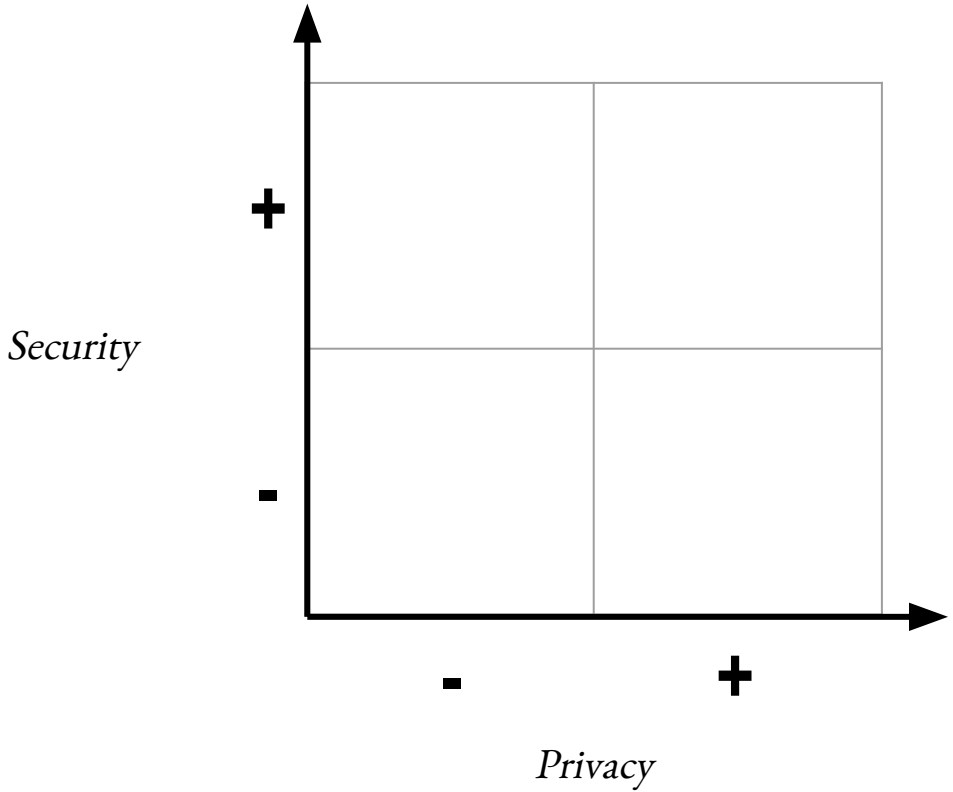
RESPONSIBLE INNOVATION

Moral Overload



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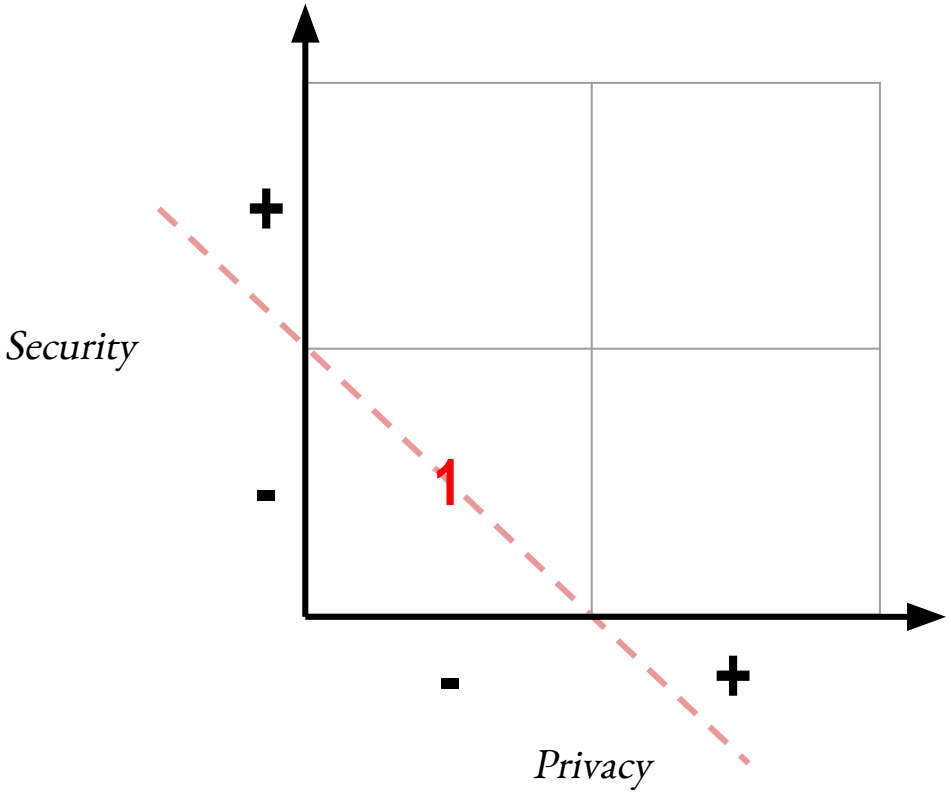
RESPONSIBLE INNOVATION

Moral Overload



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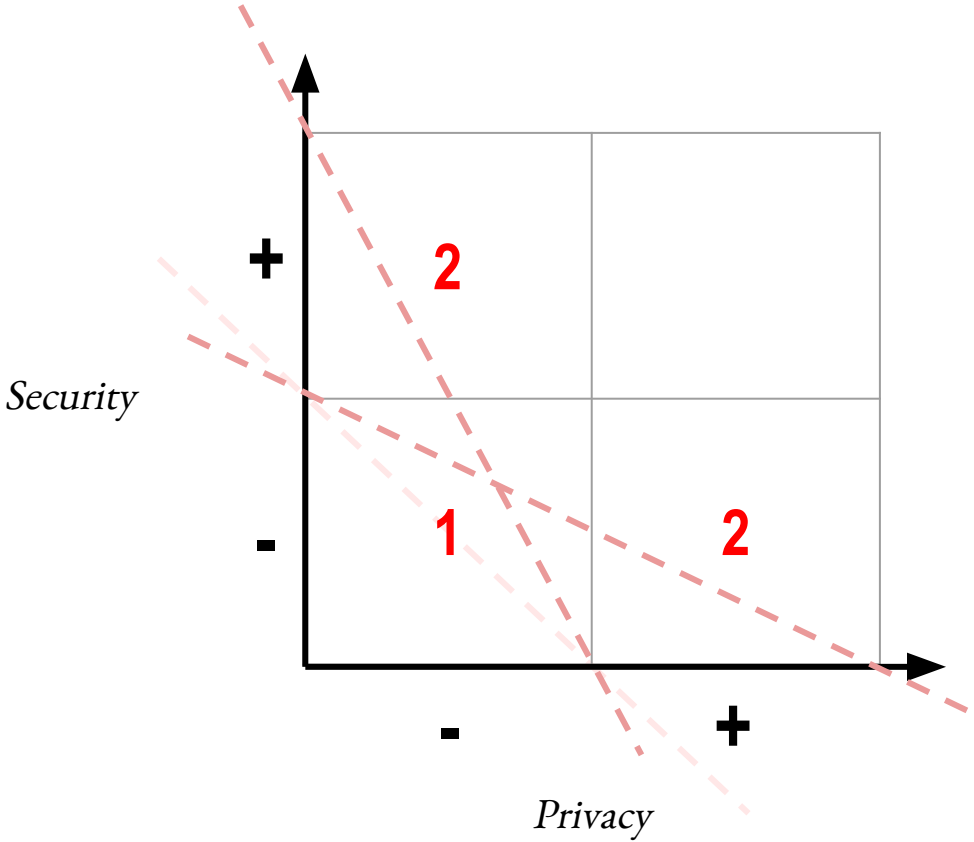
RESPONSIBLE INNOVATION

Moral Overload



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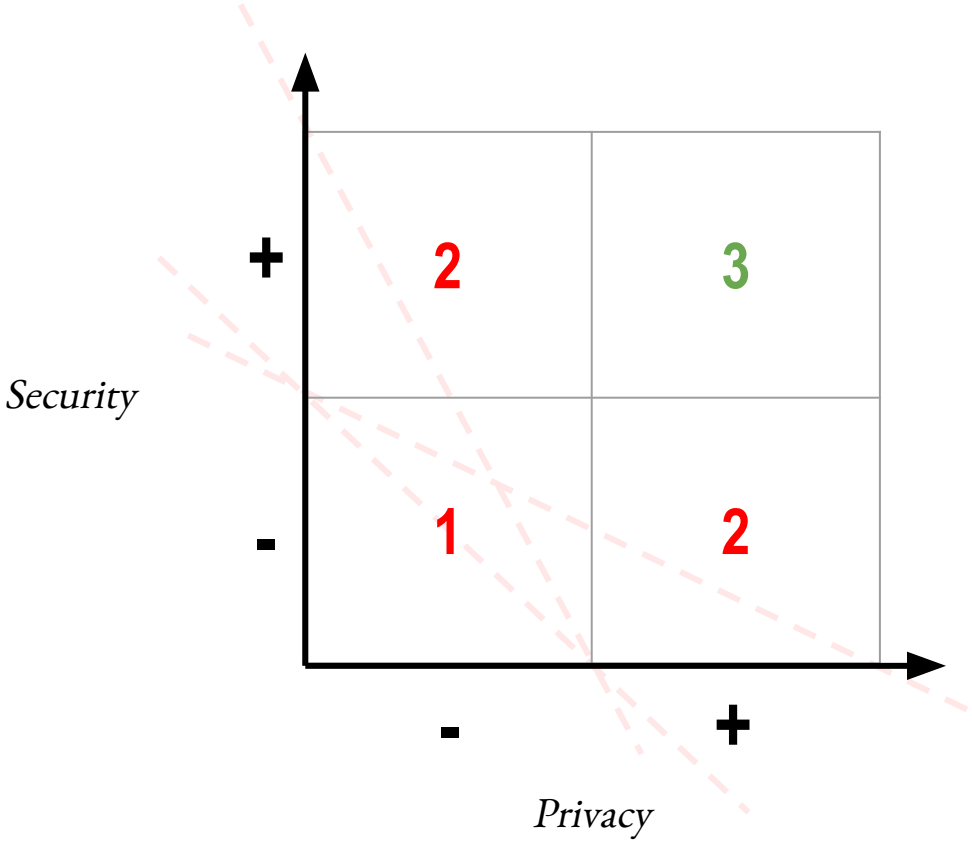
RESPONSIBLE INNOVATION

Moral Overload



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COMPLEX SOCIETAL CHALLENGES

Learning Objectives

Lecture 1 : Complex Societal Challenges

- *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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DATA-DRIVEN INNOVATION FOR NGO's

Defining Data-Driven Innovation

SYSTEMATIC LITERATURE REVIEW

"Data-Driven Innovation is about finding new ways to use data and analytics to inform decision making, improve organisational processes and create new methodologies for solving (global) challenges."

SEMI-STRUCTURED INTERVIEWS

additional aspects :

(1) service provision

(2) organisational change

(3) data governance

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DATA-DRIVEN INNOVATION

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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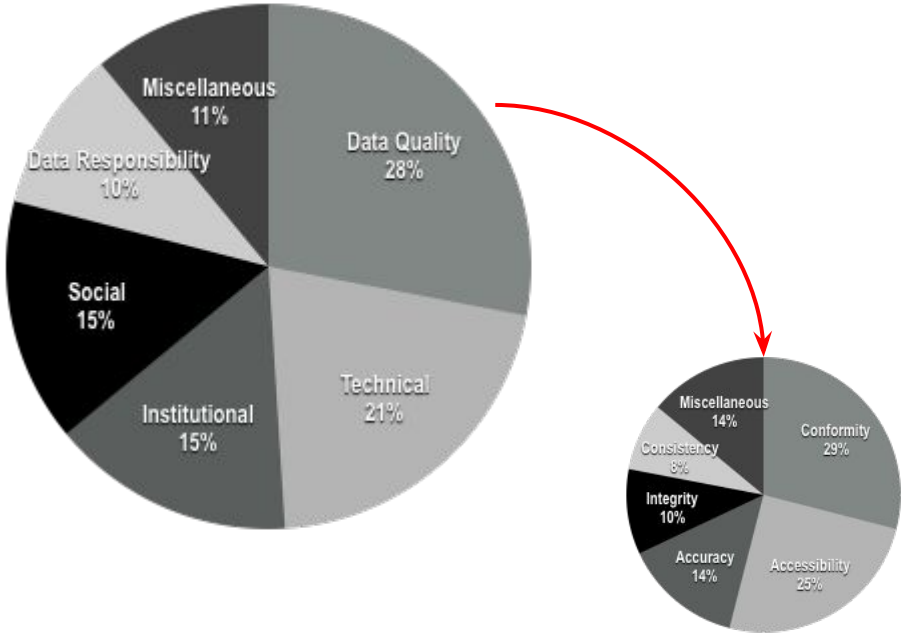
DATA-DRIVEN INNOVATION FOR NGO's

Semi-Structured Interviews

CHALLENGES FOR DATA-DRIVEN INNOVATIONS FOR NGO's



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DATA-DRIVEN INNOVATION FOR NGO's

Preliminary Conclusions

(1) Data-Driven Innovation is conducted across various sectors of industry;

(2) NGOs are still at an entry level and indicate that they face diverse and fundamental challenges in implementing data-driven innovation - in particular reference to limited capacity, resources and knowledge;

(3) Cross-collaboration and learning from other sectors (i.e. information technology, education and service) could be beneficial to improve data for achieving and monitoring sustainable development.

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DATA RESPONSIBILITY

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TOWARDS A RESPONSIBLE DATA APPROACH

Introduction

Introducing and Defining Data Responsibility

(1) What does it mean?

(2) What are the challenges?

(3) What can we do?

Objective: How to develop a responsible data approach?

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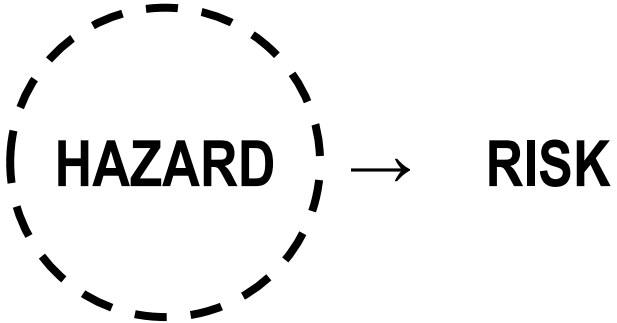
DATA RESPONSIBILITY

Definition

*The continuous **process** of defining the **value proposition** and **risk potential** of the use of digital data in a project, and **maintaining an optimal balance** between the two by **limiting or altering data use** and/or implementing **risk mitigation strategies**.*

DATA RESPONSIBILITY

Mind the Gap : Risk Assessment



SAFETY

(*mitigation*)

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GARBAGE IN → GARBAGE OUT

Challenges

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PERSONALLY IDENTIFIABLE INFORMATION

Challenges

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PERSONALLY IDENTIFIABLE INFORMATION

Challenges

LET'S TALK PRIVACY

1. *Fuzzy Concept - rather 'personal data protection'*
    - *Right to be left alone*
    - *Instrumental right*
    - *Informational Privacy*
2. *Spheres of Privacy: purpose and context*
3. *Translate to commensurable values*
4. *Mitigation Strategies (?)*

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DEMOGRAPHICALLY IDENTIFIABLE INFORMATION

Challenges

LET'S TALK GROUP PRIVACY

*"**Demographically Identifiable Information** (DII): Data points that enable the identification, classification and tracking of individuals, groups, or multiple groups of individuals by demographically defining factors: these may include ethnicity, gender, age, occupation, and religion. May also be referred to as Community Identifiable Information, or "CII"."*

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CHECKING YOUR FACTS

Lost in the Desert (Marwan)

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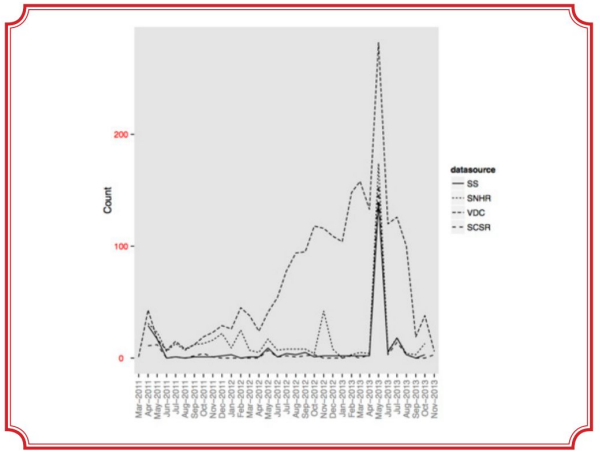
CHECKING YOUR SOURCES

Syrian Casualties

Civilians killed	40146 of which:
women	nearly 4000
children	more than 5800
Rebel fighters	21,850
Regime army soldiers	27654
Pro-regime militia	17824
Hezbollah	171
Unidentified	2726

Image taken from **'Searching for Trends: Analyzing Patterns in Conflict Violence Data'** post by Megan Price and Anita Gohdes, copied here with permission



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PROTECTING YOUR SOURCES

The Case of Nuevo Laredo

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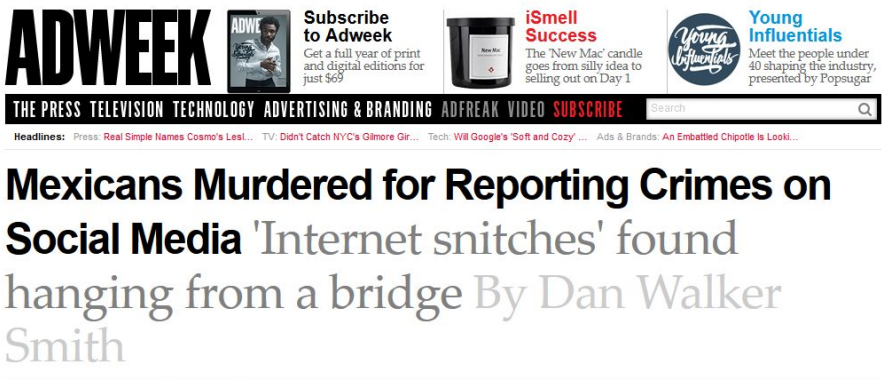
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Woman journalist is decapitated by Mexican drugs cartel over comments she made on social networking site

By THE ASSOCIATED PRESS
UPDATED: 06:24 GMT, 26 September 2011

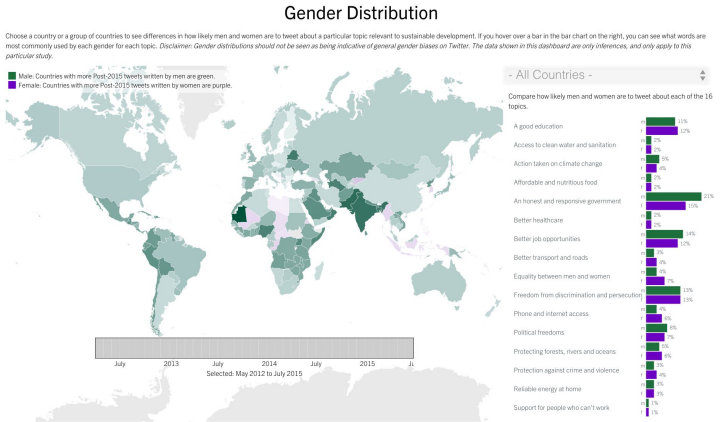
Share

72 View comments

Police found a woman's decapitated body in a Mexican border city on Saturday, alongside a handwritten sign saying she was killed in retaliation for her postings on a social networking site.

CHECKING YOUR REPRESENTATIVITY

Where are the Women in Data?



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CHECKING YOUR REPRESENTATIVITY

Typhoon Haiyan (Philippines)

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UNDERSTAND THE CONTEXT

Paper-based monitoring of elections in Sudan

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MISTAKEN IDENTITY

Iran Air Flight 655 (U.S.S. Vincennes)

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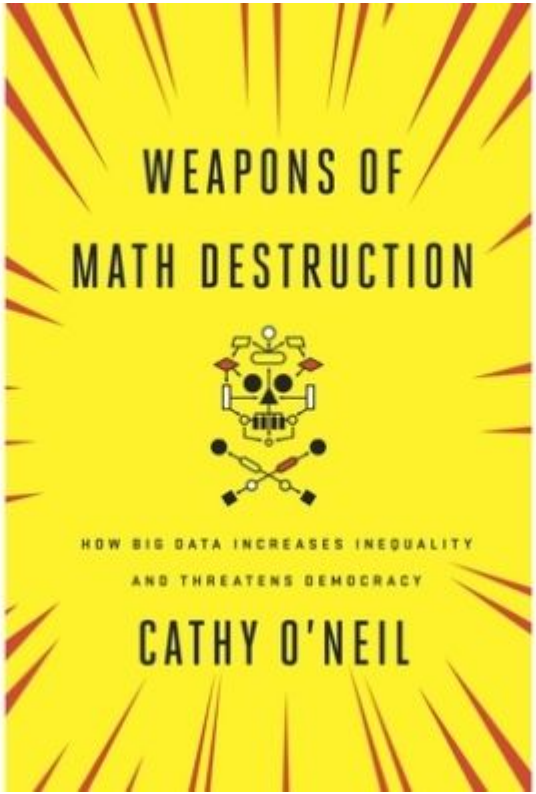
THE POWER OF ALGORITHMS

Weapons of Math Destruction



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THE BLACK BOX

The Code that Crashed Wall Street

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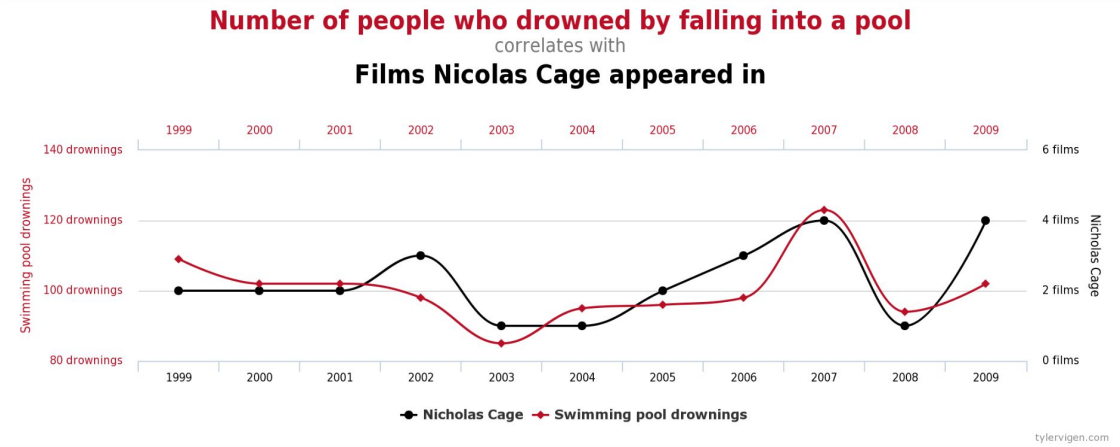
CORRELATION v. CAUSATION

The Nicolas Cage effect



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A VOTE FOR PEACE?

The Failures of Polling

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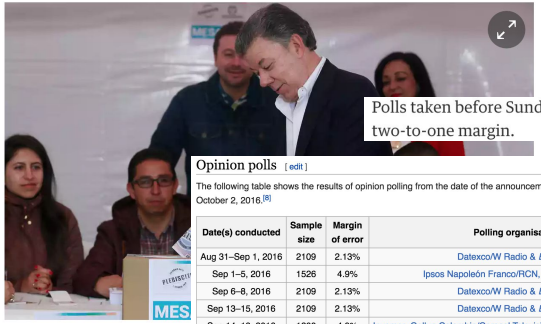
Colombian voters poised to back peace deal with Farc in referendum

Plebiscite calls for 'yes' or 'no' vote on deal signed last week by President Juan Manuel Santos and rebel commander Timochenko



Colombia's President Juan Manuel Sa

Polls taken before Sunday's referendum show the "yes" vote favored by an almost two-to-one margin.

Opinion polls [edit]

The following table shows the results of opinion polling from the date of the announcement of the wording of the referendum question on August 30, 2016 up to the date of the referendum on October 2, 2016.[8]

Date(s) conducted	Sample size	Margin of error	Polling organisation/client	Yes	No
Aug 31–Sep 1, 2016	2109	2.13%	Datexco/W Radio & *El Tiempo*[26]	59.5%	33.2%
Sep 1–5, 2016	1526	4.9%	Ipsos Napoleón Franco/RCN, La FM & *Semana*[29]	72%	28%
Sep 6–8, 2016	2109	2.13%	Datexco/W Radio & *El Tiempo*[30]	64.8%	28.1%
Sep 13–15, 2016	2109	2.13%	Datexco/W Radio & *El Tiempo*[31]	55.3%	38.3%
Sep 14–18, 2016	1200	4.9%	Invamer–Gallup Colombia/Caracol Televisión, Blu Radio & *El Espectador*[32]	67.6%	32.4%
Sep 15–20, 2016	3007	2.0%	Cifras & Conceptos/Caracol Radio & Red + Noticias[33]	54%	34%
Sep 21–25, 2016	1524	3.5%	Ipsos Napoleón Franco/RCN, La FM & *Semana*[34]	66%	34%
Sep 25–26, 2016	1471	3.7%	Cifras & Conceptos/Caracol Radio & Red + Noticias[35]	62%	38%

Colombians look likely to bac
on Sunday, the final hurdle fo
Farc fighters to re-enter socie

Results [edit]

Choice	Votes	%
✗ **No**	**6,431,372**	**50.21**
Yes	6,377,464	49.79
Valid votes	12,808,836	97.90
Invalid or blank votes	275,189	2.10
Total votes	**13,084,025**	**100.00**
Registered voters and turnout	34,899,945	37.49

Source: Univision, RNEC (99.98% of vote counted)

Colombia's Brexit moment as politicians misjudge popular anger at Farc amnesty

All sides left shocked by narrow rejection of peace deal which would have seen guerrillas guilty of war crimes escape jail

Colombia faces Brexit-style 'great dilemma' in vote to end war with Farc

In a plebiscite this year, Colombians will accept or reject a peace deal between the government and Farc guerrillas to end more than half a century of war

'No' supporters gather at a rally in Bogotá following their victory in the referendum on a peace accord to end the 52-year-old guerrilla war between the Farc and the Colombian state. Photograph: Mario Tama/Getty Images

UNINTENDED CONSEQUENCES

The Samaritan Project

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UNINTENDED CONSEQUENCES

Violence against Homosexuals (Amsterdam)

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Police record three instances of anti-gay violence a week

Uncategorized January 22, 2014

Police recorded 769 instances of violence against gay people between the beginning of 2009 and September last year, the equivalent of around three cases a week.

The figures come from a new police report which aims to establish a better picture of the extent of anti-gay violence in the Netherlands. Previous reports have focused on questionnaires.

The report states six out of 10 instances took place in Amsterdam, where police have being paying extra attention to the problem following several high profile cases.

Some 17% of cases reported involved threats of physical violence, 31% simply physical attacks and 6.7% serious attacks, the report shows. The rest were categorised as muggings and fights.

Men were the victims in 84% of cases.

HUMANITY

UNINTENDED CONSEQUENCES

The Clooney Effect &
The Satellite Sentinel Project (Sudan)

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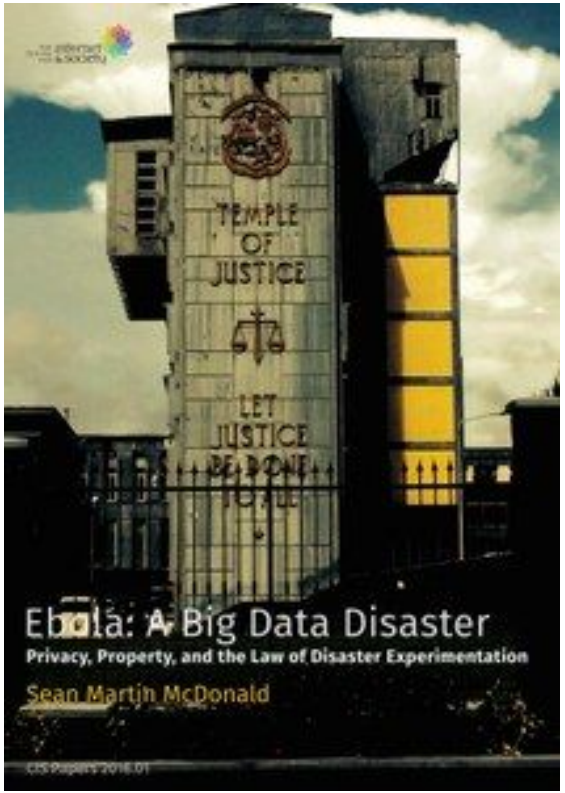
THE RUN ON DATA

Ebola : A Big Data Disaster



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EXPERIMENTATION GONE ROGUE

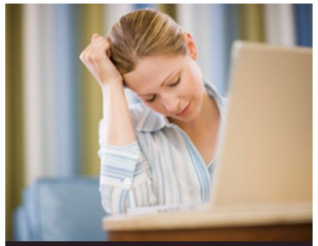
Facebook

The Anti-Social Network

By helping other people look happy, Facebook is making us sad.

6.2k 0

By Libby Copeland



Is Facebook making us miserable?

There are countless ways to make yourself feel lousy. Here's one more, according to research out of Stanford: Assume you're alone in your unhappiness.

"Misery Has More Company Than People Think," a paper in the ***January issue of Personality and Social Psychology Bulletin***, draws on a series of studies examining how college students evaluate moods, both their own and those of their peers. Led by Alex Jordan, who at the time was a Ph.D. student in Stanford's psychology department, the researchers found that their subjects consistently underestimated how dejected others were–and likely wound up feeling more dejected as a result. Jordan got the idea for the inquiry after observing his friends' reactions to Facebook: He noticed that they seemed to feel particularly crummy about themselves after logging onto the site and scrolling through others' attractive photos, accomplished bios, and chipper status updates. "They were convinced that everyone else was leading a perfect life," he told me.

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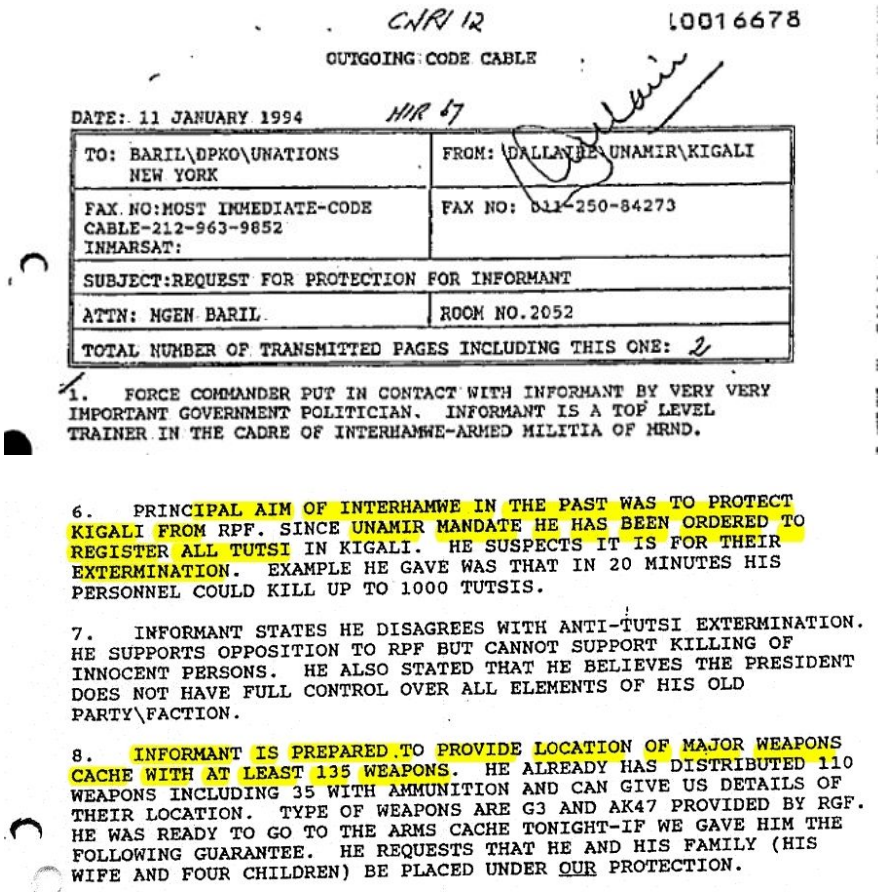
WARNING-RESPONSE GAP

Rwandan Genocide



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TO: BARIL\DPKO\UNATIONS NEW YORK	FROM: DALLAIRE\UNAMIR\KIGALI
FAX NO:MOST IMMEDIATE-CODE CABLE-212-963-9852 INMARSAT:	FAX NO: 011-250-84273
SUBJECT:REQUEST FOR PROTECTION FOR INFORMANT	
ATTN: MGEN BARIL	ROOM NO.2052
TOTAL NUMBER OF TRANSMITTED PAGES INCLUDING THIS ONE: 2	

1. FORCE COMMANDER PUT IN CONTACT WITH INFORMANT BY VERY VERY IMPORTANT GOVERNMENT POLITICIAN. INFORMANT IS A TOP LEVEL TRAINER IN THE CADRE OF INTERHAMWE-ARMED MILITIA OF MRND.

6. PRINCIPAL AIM OF INTERHAMWE IN THE PAST WAS TO PROTECT KIGALI FROM RPF. SINCE UNAMIR MANDATE HE HAS BEEN ORDERED TO REGISTER ALL TUTSI IN KIGALI. HE SUSPECTS IT IS FOR THEIR EXTERMINATION. EXAMPLE HE GAVE WAS THAT IN 20 MINUTES HIS PERSONNEL COULD KILL UP TO 1000 TUTSIS.

7. INFORMANT STATES HE DISAGREES WITH ANTI-TUTSI EXTERMINATION. HE SUPPORTS OPPOSITION TO RPF BUT CANNOT SUPPORT KILLING OF INNOCENT PERSONS. HE ALSO STATED THAT HE BELIEVES THE PRESIDENT DOES NOT HAVE FULL CONTROL OVER ALL ELEMENTS OF HIS OLD PARTY\FACTION.

8. INFORMANT IS PREPARED TO PROVIDE LOCATION OF MAJOR WEAPONS CACHE WITH AT LEAST 135 WEAPONS. HE ALREADY HAS DISTRIBUTED 110 WEAPONS INCLUDING 35 WITH AMMUNITION AND CAN GIVE US DETAILS OF THEIR LOCATION. TYPE OF WEAPONS ARE G3 AND AK47 PROVIDED BY RGF. HE WAS READY TO GO TO THE ARMS CACHE TONIGHT-IF WE GAVE HIM THE FOLLOWING GUARANTEE. HE REQUESTS THAT HE AND HIS FAMILY (HIS WIFE AND FOUR CHILDREN) BE PLACED UNDER OUR PROTECTION.

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DATA RESPONSIBILITY

Process (1)

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.

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DATA RESPONSIBILITY

Process (2)

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.

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UNDERSTANDING RISKS

Different Risk Types

Various types of risk to keep in mind along the data lifecycle:

- Systems (technical infrastructure)
- People (e.g. insufficient training)
- Organisation (e.g. data analysis results too easily taken as true)
- Network (risks caused by partners e.g. data providers)
- Strategy (e.g. insufficient attention for data collection, partnerships to acquire new data)

UNDERSTANDING RISKS

Different Mitigation Types

Several types of mitigation strategies:

- Systems (boost cybersecurity, introduce technical use/sharing limitations)
- People (invest in training, workshops, give time to learn how to work with the tool)
- Organisation (clarify roles and responsibilities of different units, create M&E mechanism / oversight / review board)
- Network (define standards for which partners to work with)
- Strategy (raise data-awareness among leadership)

DATA RESPONSIBILITY

Data in the Project Lifecycle

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SUDAN: CDR POVERTY MAPPING

Sudanese Government;
UNDP

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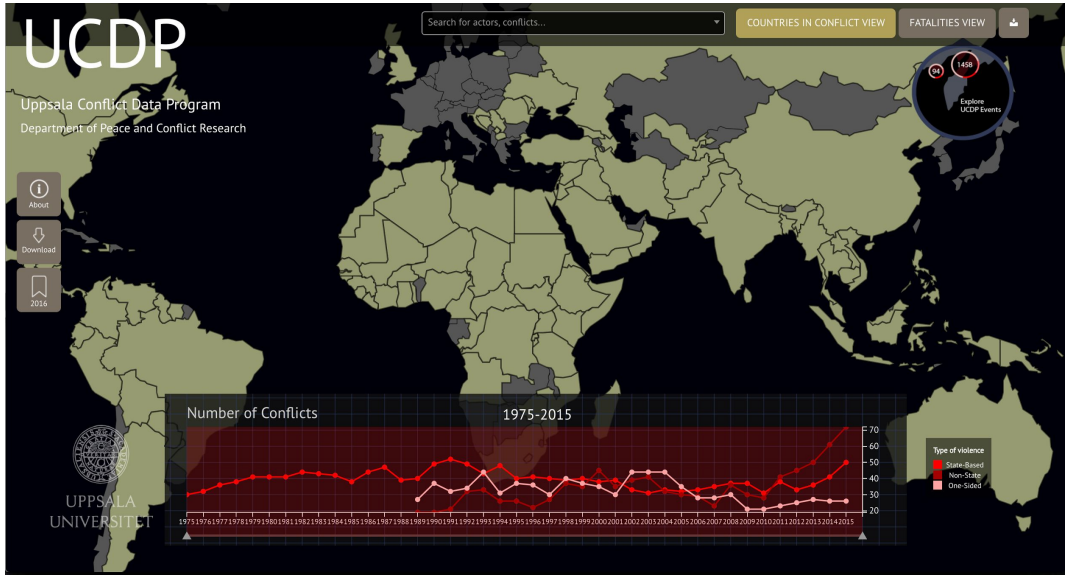
DATA 4 PEACE

UNDP (Bangkok)



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NEXT WEEK

Data Responsibility (2)

PREPARE

- *Define your challenge and focus*
- *Identify the (initial) opportunity for data-driven innovation*
- *Start to think about possible challenges and risks*

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HUMANITY X