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ALLIANCE

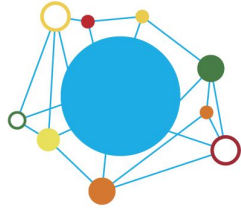
Changing the world with data



Artificial Intelligence and Big Data for Anti-corruption

Yasmine Hamdar
Computational Social Scientist, DPA

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Data-Pop Alliance



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Changing the world with data

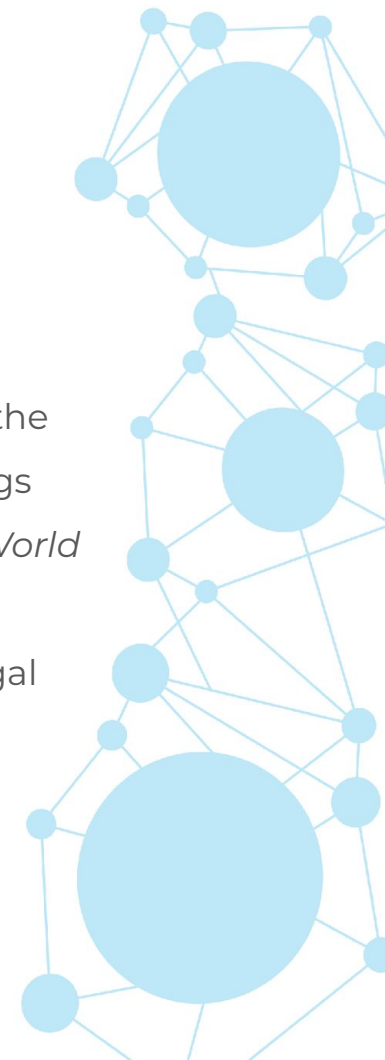
Data-Pop Alliance is a non-profit “Think-and-Do-Tank” created in 2013 by the Harvard Humanitarian Initiative, MIT Connection Science and ODI that brings together **researchers, practitioners and activists** who want to “*Change the World with Data*” through projects in and with Global South countries. DPA is incorporated as a Charity or equivalent in the US (2016), Mexico (2018), Senegal (2021) and France (2022).



**HARVARD
HUMANITARIAN
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MIT Connection Science
the technology of innovation



Our 6 Thematic Programs



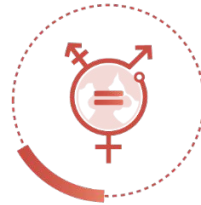
1
**Just Digital
Transformations**



2
**AI and Statistics for
the SDGs**



3
**Resilient Livelihoods
and Ecosystems**



4
Data Feminism



5
**Geographies
of Inequalities**



6
**Technology and
Democracy**

“Overview and Outlook 2021-23” Report



18 out of 22

Arab states have a corruption perception index < 50*

* 100 is very clean

* 0 is highly corrupt



Artificial Intelligence: The next frontier in anti-corruption?

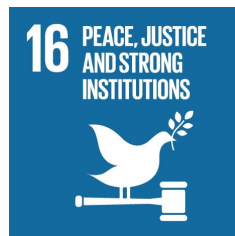
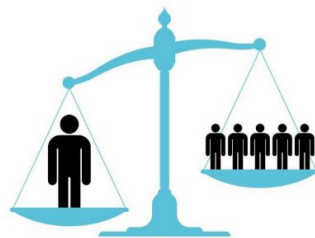
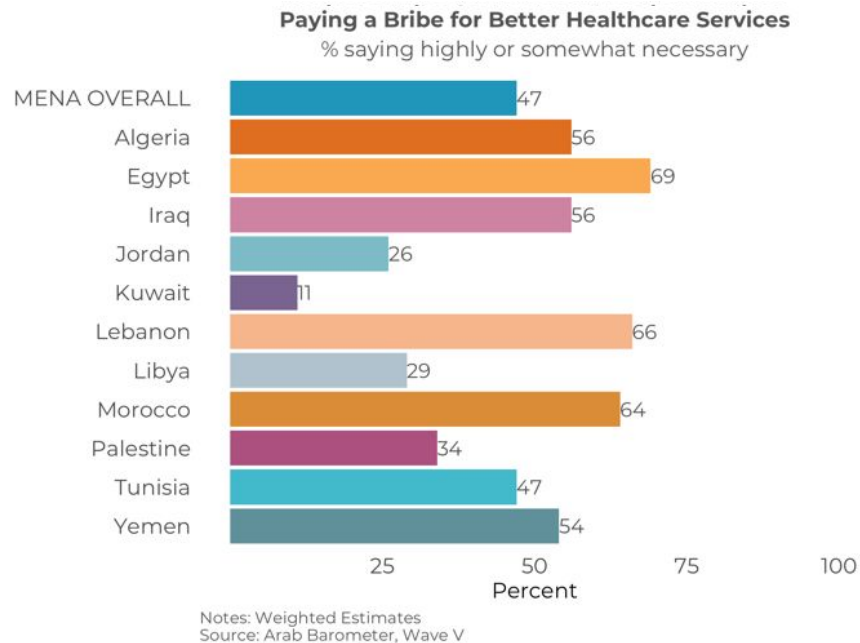


Figure 1. World Bank Blogs - "Arab Barometer Report: Perceptions of corruption on the rise across MENA"

AI-ACT Approaches: Top-down versus Bottom-up

Example:
Human auditor identifies and prosecutes corruption

Top-down Anti Corruption Government introduces checks & balances to reduce corruption

Example:
Machine Learning tool predicts risk of corruption from data

Traditional anti-corruption

Corruption Abuse of entrusted power for private gain

AI-supported anti-corruption

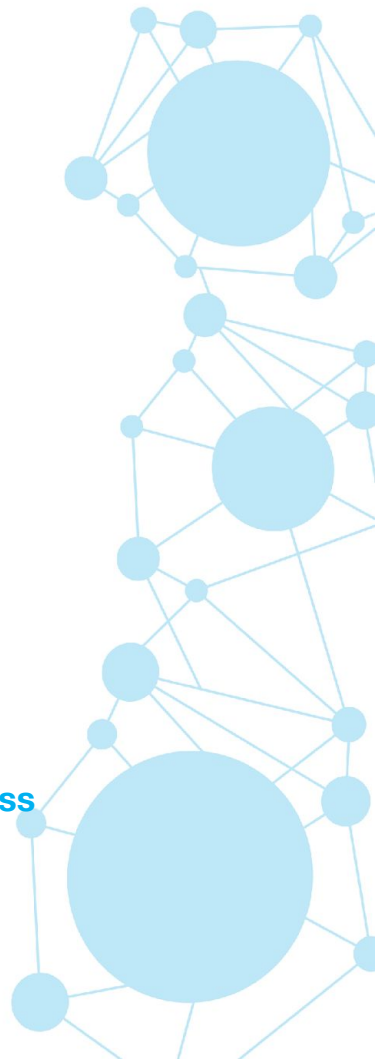
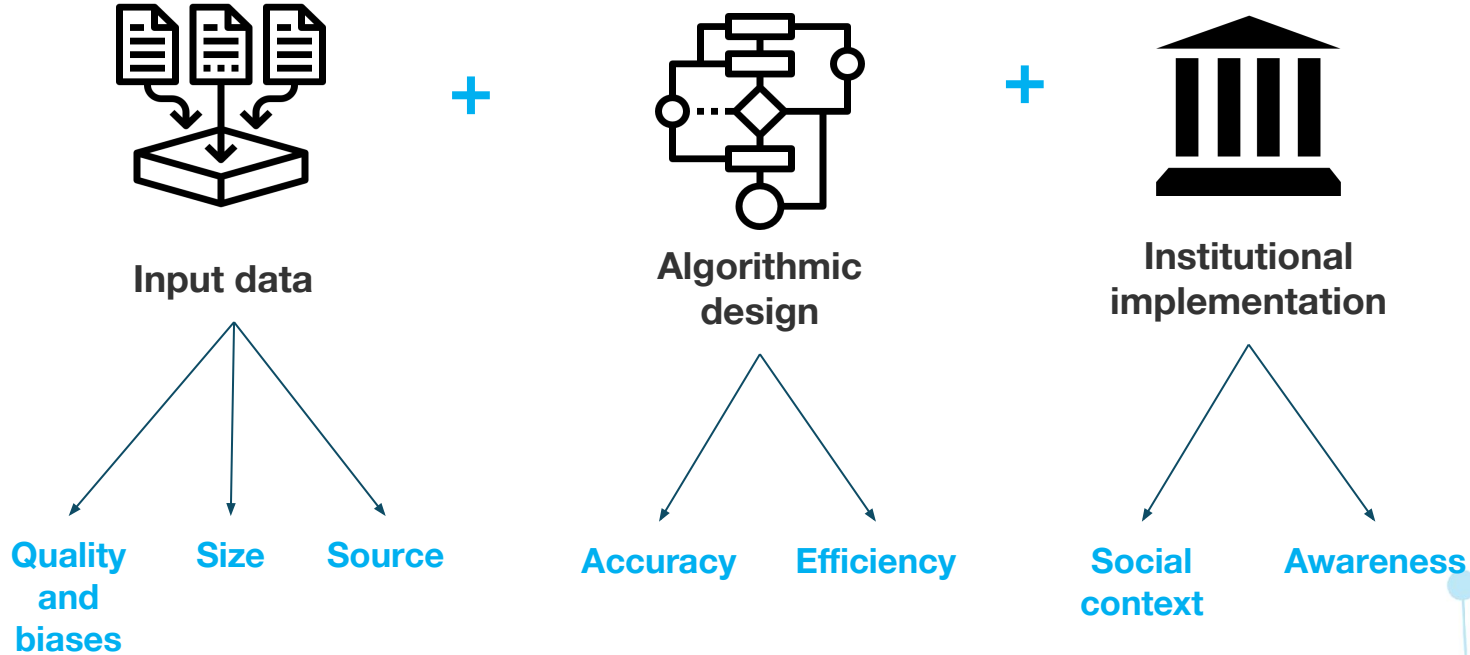
Example:
Citizens organizing protest against corruption

Bottom-up anti-corruption Identify and support existing efforts within society to reduce corruption

Example:
Tweetbots motivate citizens' action by flagging suspected corruption

Figure 2. AI-ACT Approaches. Adapted from "The promise and perils of using artificial intelligence to fight corruption," by N. Köbis, C. Starke & I. Rahwan, 2022

Requirements for Successful AI-ACT



Use of AI: Natural Language Processing for Social Media Data

Follow

Last night i again saw @constables taking bribe, near the same location (on the border). All hopes of my fight against corruption, shattered....
Unfortunately I didn't have my phone at that time, otherwise I would have recorded their faces. (4)



NLP Model



Output: flagged or not



Response



Use of AI and Big Data Analytics: Revealing Fraud in Public Procurement

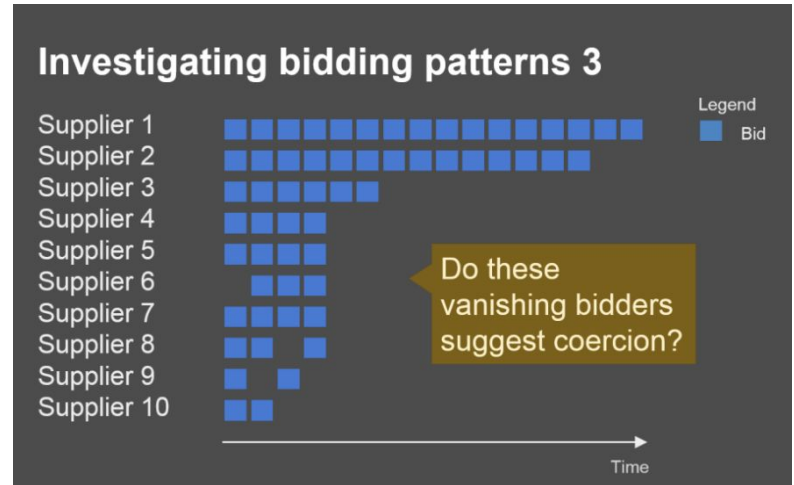
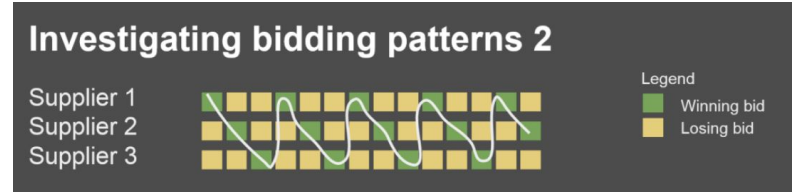
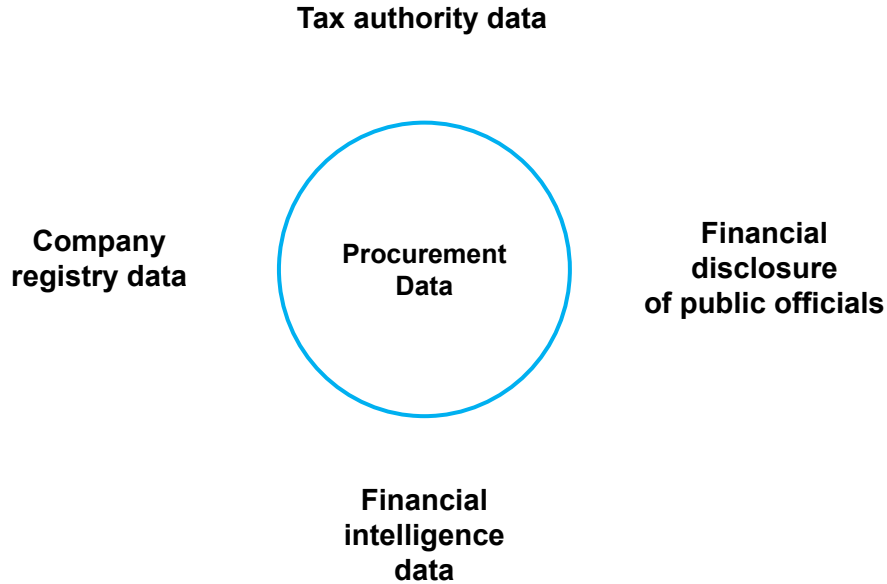
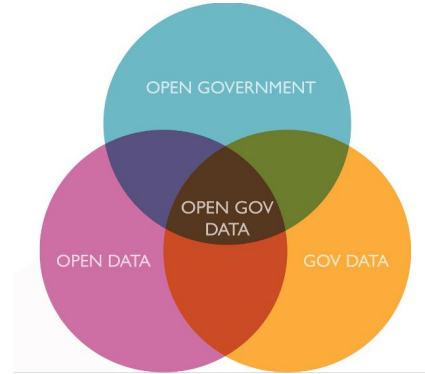


Figure 3. Investigating bidding patterns. Adapted from "Using Data and Transparency to Fight Corruption in Public Procurement" by S. Zimmermann - data modeling using WBG and national data

Challenges and Concerns



Transparency



Open Data



**Ethical challenges:
privacy concerns
and data leaks**

Digital Preparedness



Cutting-edge Tech



Custom-tailored Data



Public AI Algorithms



Publicly Available Data

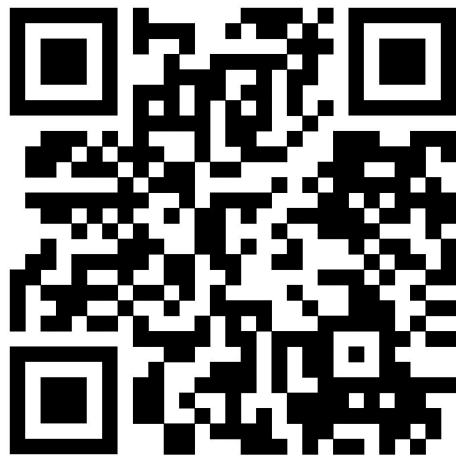




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Thank you

yhamdar@datapopalliance.org



[@datapopalliance](https://twitter.com/datapopalliance)

contact@datapopalliance.org

www.datapopalliance.org

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