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SYMPOSIUM: DATA ANALYTICS FOR ANTICORRUPTION IN PUBLIC ADMINISTRATION

October 25-28, 2021

Introduction

With support from the KDI School of Public Policy and Management (KDI School), the program on Data Analytics for Anticorruption in Public Administration (DAAPA) sought to enhance the analysis and measurement of corruption risks and inform the World Bank's technical assistance in developing and implementing data driven solutions and evidence-based policies for controlling corruption.

DAAPA culminated in the Symposium on Data Analytics for Anticorruption in Public Administration, co-hosted by the World Bank and the Korea Development Institute School of Public Policy and Management on October 25-28. The Symposium brought together researchers working to advance anticorruption data analytics to help inform more effective policies and actions by governments for greater accountability in public administration.

In addition to the KDI School and the World Bank, the following partners supported DAAPA:

- University of Sussex
- Government Transparency Institute
- The Alan Turing Institute and University of Warwick
- GovLab and New York University
- Data & Policy and Cambridge University Press
- Organized Crime and Corruption Reporting Project (OCCRP)
- Development Bank of Latin America (CAF)

This summary reviews the Call for Papers, selection of papers, and the Symposium itself.

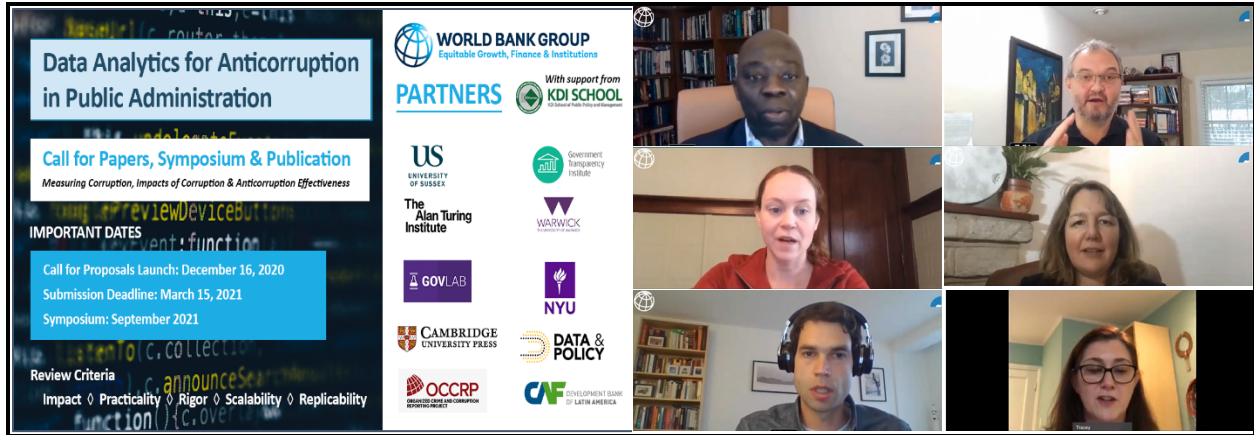
Call for Papers

The Call for Papers launch was held on December 16, 2020. The Call for Papers was

- Opening remarks by the Chair, Ed Olowo-Okere, Global Director for the Governance Global Practice, World Bank
- New data-driven approaches to detecting and measuring corruption, by James Anderson, Lead Governance Specialist, The World Bank
- Using new data sources and methods to measure the impacts of corruption, by Brigitte Seim, Assistant Professor, University of North Carolina, Chapel Hill
- How new open data can help assess the effectiveness of anticorruption tools, policies and interventions, by Liz David-Barrett, Center for the Study of Corruption, University of Sussex
- Contributing new knowledge that assists policymakers and researchers in addressing and overcoming ethical and technical challenges associated with data quality, privacy and access in the anticorruption field, by Marko Klašnja, Assistant Professor, Georgetown University
- How the Data Analytics for Anticorruption in Public Administration research program will fit into World Bank support for client countries, by Tracey Lane, Project Manager, Governance, The World Bank Group

The Call for Papers event can be viewed [here](#):

Symposium on Data Analytics for Anticorruption in Public Administration



Theme	Submissions
<ul style="list-style-type: none"> ▪ New data-driven approaches to detecting and measuring corruption; 	31
<ul style="list-style-type: none"> ▪ Using new data sources and methods to measure the impacts of corruption; 	5
<ul style="list-style-type: none"> ▪ Using open data to assess the effectiveness of anticorruption tools, policies, and interventions; 	15
<ul style="list-style-type: none"> ▪ Contributing new knowledge on data access, quality, and privacy issues. 	9

Four Expert Panels were created to evaluate the submissions. It was agreed that paper submissions would be reviewed along five dimensions.

- *Rigor*: Does the submission demonstrate that thought has been given to the range of analytic methods that might be useful to generate statistical findings or insights, and to the need to validate the results and mitigate the risks of bias?
- *Scalability*: Does the submission use datasets, present methods and approaches which are scalable to a wide range of countries and settings? Do the authors discuss barriers and facilitators of scaling the proposed approach up beyond the scope of the study?

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The Expert Panels evaluated the paper proposals in April. An Advisory Board Meeting was held on May 11, 2021. The meeting recapped the review criteria and considerations for selection and discussed the paper submissions as reviewed by the expert panels. A total of 26 papers were invited to submit their papers for the Symposium.

An Advisory Board meeting June 22, 2021 to discuss the next steps for the preparation of the Symposium.

Symposium

As a result of the evolving situation with the COVID-19 pandemic, plans were made for an entirely online Symposium. As the date approached, we were notified that because of changes in the operating status of the World Bank Headquarters, only hybrid events would be supported.

The Symposium on Data Analytics for Anticorruption in Public Administration was co-hosted by the World Bank and the Korea Development Institute School of Public Policy and Management on October 25-28, 2021.

The Symposium brought together researchers working to advance anticorruption data analytics to help inform more effective policies and actions by governments for greater accountability in public administration. Of the 26 author teams that had been selected for the Symposium, 23 ultimately submitted their draft manuscripts and presentations and participated in the event.



Agenda

The agenda included a high-level panel discussion, thematic sessions at which the papers were presented, and detailed technical sessions and lightning talks. The four-day agenda is presented below. (Click on the link to the session title for the recording.)

DAY 1, October 25

8:00 - 8:10: **Welcome** | Ed Olowo-Okere, Director, Governance Global Practice, World Bank

8:10 - 9:15: **Opening Plenary — The Growing Role of Data in Anticorruption** | Moderator: Karen Allen, Senior Research Advisor, Institute for Security Studies, Johannesburg

- Alina Mungiu-Pippidi, Professor of Democracy Studies at the Hertie School, Berlin
- Delia Ferreira, Chair, Transparency International
- Elizabeth David-Barrett, Professor of Governance and Integrity at the University of Sussex and Director of the Centre for the Study of Corruption

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- Emilia Díaz-Struck, ICIJ's Research Editor and Latin America Coordinator, Venezuela

9:15 - 10:30: **Panel — New data-driven approaches to detect corruption** | Chair: James Anderson, World Bank | Discussant: Mihaly Fazekas, Government Transparency Institute

- Smart Parser: An Applied Methodology for Extracting and Analyzing Disclosures Data in Russia — *Presenter: David Szakonyi*
- New data-driven approaches to measuring corruption drivers and addressing collective action problems — *Presenters: Leena Hoffmann (and Raj Patel)*
- Conspiracy to Corrupt: Extraction and Analysis of Bribery Network Data from Deferred Prosecution Agreements — *Presenters: Tomáš Diviák (and Nicholas Lord)*



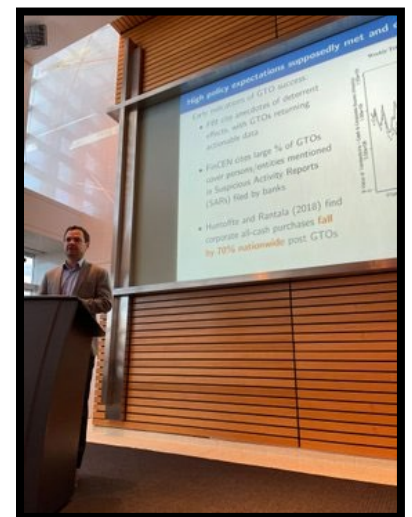
10:45 - 12:00: **Panel — Measuring corruption in countries** | Chair: Joel Turkewitz, IMF Legal Department | Discussant: Kristina Aquino, World Bank

- The local advantage: Corruption, organized crime, and indigenization in the Nigerian oil sector — *Presenter: Jonah Rexer*
- Open Data as an Anticorruption Tool: Establishing a Framework to Enhance Accuracy of Data — *Presenter: Tatiana M. Martinez and Edgar A. Whitley*

DAY 2, October 26

8:00 - 9:15: **Panel — Machine learning techniques and advanced data to detect corruption** | Chair: Alexandra Habershon, World Bank | Discussant: Ravi Kumar, World Bank

- Elaboration of Supervised and Unsupervised Machine Learning Methods as Fraud Detection Tools in the National Health Insurance Policy: Lesson Learned from Indonesia — *Presenter: Raisa Annisa (Additional Authors: Lalu Garin Alham, Elisabeth Medina Saraswati, and Humam Faiq)*
- The application of machine learning and mathematical models to fight corruption in the procurement process — *Presenter: Confess Matete (Additional Authors: Paul Sambo, Eriyoti Chikodzi, Justin Chirima, Ackim Munthali, Jezepher Mudzvete and Elijah Chirinda)*
- Fiscal Data in Text: Information Extraction from Audit Reports using NLP — *Presenter: Alejandro Beltran*



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9:15 - 9:45: **Technical Session — Procurement Anticorruption and Transparency (ProACT)**
Platform | Mihaly Fazekas, Government Transparency Institute

9:45 - 10:00: **Lightening Talk — DigIntegrity: How data and technology are leveraging integrity policies in Latin America** | Camilo Cetina, CAF, Development Bank of Latin America

10:15 - 10:45: **Technical Session — Leveraging tech. to improve the management of integrity risks: Detecting patterns through data** | Marcelo Donolo, World Bank

10:45 - 12:00: **Panel — Measuring corruption transnationally** | Chair: Erica Bosio, World Bank | Discussant: James Anderson, World Bank

- Anticorruption techs to face a global economy: federated learning, open data catalogues, and “blockchain” — *Presenter: Danielle Mendes Thame Denny (Additional Authors: Philip Treleaven, Emre Kazim, Adriano Soares Koshiyama and Rares Dolga)*
- Why are some public agencies less corrupt than others? Lessons for institutional reforms from survey data — *Presenter: Francesca Recanatini*
- Fighting Corruption from Space - practitioners perspective — *Presenter: Swetha Kolluri (Additional Author: Kandarp Patel)*

DAY 3, October 27

8:00 - 9:15: **Panel — Corruption in public administration** | Chair: Elizabeth David-Barrett, University of Sussex and the Centre for the Study of Corruption | Discussant: Erica Bosio, World Bank

- Does Spending More in Public Governance Guarantee Less Corruption? Non-linearities and Complementarities of the Rule of Law — *Presenter: Gonzalo Castaneda (Additional Author: Omar Guerrero)*
- The impact of ownership transparency policies on illicit purchases of US property — *Presenter: David Szakonyi (Additional Authors: Florian Hollenbach and Matt Collin)*



9:15 - 9:45: **Special Session — World Development Report 2021 - Data for Better Lives** | Malarvizhi Veerappan, World Bank

9:45 - 10:00: **Lightening Talk — Data & Policy, a Peer-Reviewed, Open Access Journal Dedicated to the Impact of Data Science on Policy and Governance** | Andrew Hyde, Cambridge University Press

10:15 - 10:45: **Technical Session — The Power of Public Data: Analytics to Deter Corruption** (ppt attached) | Daniel Ortega, World Bank

10:45 - 12:00: **Panel — Using new data sources and methods to measure the impacts of corruption** | Chair: Bob Rijkers, World Bank | Discussant: Craig Hammer, World Bank

- Can the corruption fight hurt more than corruption itself? — *Presenter: Raissa Dantas*

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- Sparrowhawk on firms? Do anti-national corruption policies impact firms' perception towards corruption: Empirical evidence from anti-corruption campaign in Cameroon — *Presenters: Soazic Elise Wang Sonne and Firmin Sosso Ngoutte*
- Measuring the effectiveness of whistle-blower protection: A new index — *Presenters: Shpresa Kaciku and Kyoung-Sun Kyle Min*



DAY 4, October 28

8:00 - 9:15: **Panel — Corruption in public**

procurement | Chair: Daniel Ortega, World Bank | Discussants: Marko Klasnja, Georgetown University; Knut Leipold, World Bank

- Measuring the risk of corruption in public procurement in the current Covid global emergency — *Presenter: Michela Gnaldi (Additional Authors: Federico Morando, Davide Allavena, and Simone Del Sarto)*
- Taming Corruption in Public Procurement using Open Linked Data and Anomaly Detection Techniques — *Presenter: Ahmet Soylu (Additional Authors: Oscar Corcho, Brian Elvesæter, Carlos Badenes-Olmedo, Francisco Yedro Martínez, Matej Kovacic, Matej Posinkovic, Mitja Medvešček, Ian Makgill, Chris Taggart, Elena Simperl, Till C. Lech, and Dumitru Roman)*
- How to reduce bureaucratic corruption? Unpacking Brazilian anti-corruption audits — *Presenters: Galileu Kim and Romain Ferrali*

9:15 - 9:45: **Technical Session — Assessing laws and regulations to undo state capture** | Francesca Recanatini and David Bernstein, World Bank

10:00 - 11:15: **Panel — Politics and corruption: Measuring corruption in political parties and elections** | Chair: Francesca Recanatini, World Bank | Discussant: Camilo Cetina, CAF, Development Bank of Latin America

- Predicting Politicians' Misconduct: Evidence from Colombia — *Presenter: Jorge Gallego (Additional Authors: Mounu Prem and Juan Vargas)*
- Risk of Corruption in Latin American Political Parties — *Giovanna Rodriguez-Garcia*
- Electoral corruption and opaque financial transactions: the case of Italy — *Presenter: Marianna Siino (Additional Authors: Giacomo De Luca, Giuseppe De Feo, and Mario Gara)*

11:15am - 12:00pm: **Closing Plenary — The Future of Data and Anticorruption** | Moderator: Tracey Lane, Practice Manager, Governance, World Bank

Symposium on Data Analytics for Anticorruption in Public Administration

Receptions and Metrics

The Symposium was very well received and appreciated by participants. The agenda covered 23 paper presentations on each of the four areas covered by the Symposium, a lively opening panel discussion among some notable leaders in this space, eight other sessions and “lightening talks”, and active participation among the people connected through Zoom!

In total 818 people registered for the Symposium, and many more watched the livestream.

The Symposium was widely covered in social media, both Twitter and LinkedIn. On Twitter, DAAPA generated 307,839 impressions, 23,120 engagements, and 2,508 media engagements. The hashtag #DAAPA was used for social media postings.

