

Committee: GA4- Legal Committee

Issue: Data management and the role of media in the fight against corruption

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Position: President, Deputy President

INTRODUCTION

In our day and age corruption is one of the most pressing problems of every society. That is due to the fact that corruption affects the society as a whole, because it has social, political, environmental and economic costs. For that reason it is of paramount importance to tackle this problem. The key to achieving this is transparency. Transparency helps the citizens by informing them about corruption and thus providing them with the critical capacity to hold those in power, accountable for their corrupt actions. The media play an important role in educating the public by shedding light on scandals and unveiling the truth.

There is no doubt that nowadays technology is a substantial part of our lives. In the 21st century nearly everything is being conducted via the internet such as online paying, online school, jobs, shopping and thus the media that are housed on the internet, them being social media, online newspapers, and internet articles, can have a great impact on citizens' daily choices and actions. With that being said it is understandable why online data play such an important part in our daily life. Although, everything that can be saved on the internet, or on a digital platform in general, can also easily be deleted, or used for other purposes, such as personal information hoarding. This phenomenon is called Data Corruption and it is the debatable issue of our committee. In other words, Legal Committee's delegates are being called to come up with solutions on how the Media can give a helping hand on combating Data Corruption and ensuring the smooth function of Data services.

For any questions that may come up and any possible hesitation during your research, do not hesitate to contact us so as to help you clear up your mind, via our emails: Myrto: myrto.pakidi@gmail.com, Georgiana: geathgeo@gmail.com. We highly encourage all delegates to do their own personal research regarding the topic and not only be restricted to the Study Guide. Researching your own information can be proven very beneficial because it will give the advantage of knowledge on the topic to those deeply informed, so they will excel

while formatting resolutions. We are looking forward to cooperating with you all and we are certain that we will have a great collaboration and fruitful debates.

DEFINITION OF KEY TERMS

Data management

Data management is the process of ingesting, storing, organizing and maintaining the data created and collected by an organization. The goal of data management is to help people, organizations, and connected things optimize the use of data within the bounds of policy and regulation so that they can make decisions and take actions that maximize the benefit to the organization. A robust data management strategy is becoming more important than ever as organizations increasingly rely on intangible assets to create value.¹

Media

Media genres can be classified according to: i) the medium in use (print, television, radio, digital media), ii) the audiences they address (elite media, mainstream media, children's media, consumer media, among others), iii) their mode of journalistic practice and required skills (for example, knowledge on investigative tools and data analysis), and iv) ownership structures. Especially relevant for anti-corruption are investigative journalism, mainstream media, satire and alternative media and, in particular, regarding their ownership structures, degrees of political, editorial and financial independency, types of journalistic practice and accessibility.²

Corruption

We define corruption as the abuse of entrusted power for private gain. Corruption erodes trust, weakens democracy, hampers economic development and further exacerbates inequality, poverty, social division and the environmental crisis. Exposing corruption and

¹ <https://www.oracle.com/database/what-is-data-management/>

² <https://www.u4.no/publications/media-and-corruption>

holding the corrupt to account can only happen if we understand the way corruption works and the systems that enable it.³

Data Governance

Data Governance is a collection of practices and processes which help to ensure the formal management of data assets within an organization. Data Governance often includes other concepts such as Data Stewardship, Data Quality, and others to help an enterprise gain better control over its data assets, including methods, technologies, and behaviors around the proper management of data. It also deals with security and privacy, integrity, usability, integration, compliance, availability, roles and responsibilities, and overall management of the internal and external data flows within an organization.⁴

Punch Card

Punch cards (or "punched cards"), also known as Hollerith cards or IBM cards, are paper cards where holes may be punched by hand or machine to represent computer data and instructions. They were a widely-used means of inputting data into early computers. The cards were fed into a card reader connected to a computer, which converted the sequence of holes to digital information.⁵

Data Corruption

Data corruption is a when data becomes unusable, unreadable or in some other way inaccessible to a user or application. Data corruption occurs when a data element or instance loses its base integrity and transforms into a form that is not meaningful for the user or the application accessing it.⁶

³ <https://www.transparency.org/en/what-is-corruption#>

⁴ <https://www.dataversity.net/what-is-data-governance/>

⁵ <https://www.computerhope.com/jargon/p/punccard.htm>

⁶ <https://www.techopedia.com/definition/14680/data-corruption>

Open Data

Open data is data that can be freely used, re-used and redistributed by anyone - subject only, at most, to the requirement to attribute and share alike.

Availability and access: the data must be available as a whole and at no more than a reasonable reproduction cost, preferably by downloading over the internet. The data must also be available in a convenient and modifiable form.

Re-use and redistribution: the data must be provided under terms that permit re-use and redistribution including the intermixing with other datasets.

Universal participation: everyone must be able to use, re-use and redistribute - there should be no discrimination against fields of endeavour or against persons or groups. For example, 'non-commercial' restrictions that would prevent 'commercial' use, or restrictions of use for certain purposes (e.g. only in education), are not allowed.⁷

BACKGROUND INFORMATION

The History Of Data Management

The concept of data management firstly started in the early 1950, due to the fact that computers back then were extremely slow and they had the need of a vast amount of manual labor to eventually operate successfully. Data Management should not be confused with Data Governance. In order to make the procedure of Data Management more clear and understandable, we quote the following example: imagine being at an airport. *Each airport has outgoing flights. Each passenger has a destination and reaching each destination requires one or more of flights. Additionally, each flight has a certain number of passengers. The information could be shown hierarchically, but this method has a major problem. The displayed data can be focused on flights, or passengers, or destinations, but not all three simultaneously. Displaying three separate hierarchies requires storing the data redundantly, and starts becoming expensive. Also, updating the data in three separate files is more difficult than updating it in one. All three hierarchies must be updated to eliminate confusion.*

⁷ <https://www.slq.qld.gov.au/what-open-data>

Using a network data model (very bottom of the linked page), which is much more flexible, provides a better solution. Good Data Management is key to a successful business.⁸

Causes of Data Corruption and loss

Data Corruption is not something that can be provoked by itself. Data can be corrupted due to electronic transportation, because in a simple network information must pass from hard disk to bus to memory to network card to cable and back again, billions of times a day. If any link in this chain is faulty, information can be lost or corrupted. Here are the 8 most common mistakes that cause data corruption:

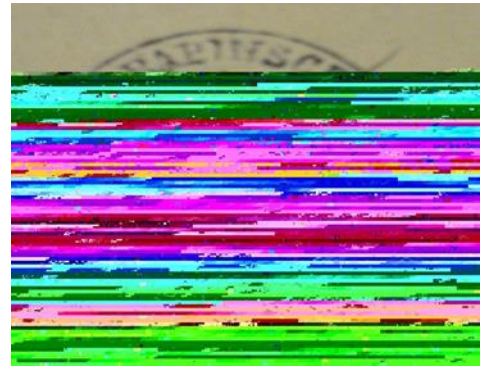
1. Bad program exits: One of the more common causes of data corruption is not properly shutting down a program that has files open. This can happen accidentally, when your entire building loses direct electrical power, or it can be due to intention or carelessness, like not shutting down your vital applications before turning your computer off.
2. Malware infections: Sadly, malware or virus infections can directly damage files. The means to damage your files can be as simple as encrypting them so they cannot be read by their normal applications, marking them hidden, or outright deleting them.
3. Power issues: Suddenly shutting a computer down through loss of power can definitely cause corruption, as the files that were open at the time of the shutdown may not have been properly closed out on the hard drive itself. While rare, sudden changes in voltage can also affect your computers, and thusly, your data files
4. Physical hardware issues: This can run the gamut. Hard drives are miraculous machines but the kind that is still mainly in use involves spinning disks of magnetic media. As mentioned before, it's not a matter of if your hard drive will fail, it's a matter of when. If they don't crash outright, it's possible for a sector on the hard drive to become unreadable. Whatever files were written to a bad sector can become damaged. Network hardware can also fail. Even shielded cables can break down if wired too closely to a heat source. Routers can become damaged, interfering with the transmission of data packets across a network.
5. Any interruption in data transmission: Basically, anything that interferes with normal data transmission can damage or corrupt your files. Wireless networks are

⁸ <https://www.dataversity.net/brief-history-data-management/>

particularly susceptible to this. You have experienced this directly if you've ever had a dropped mobile phone call.

6. Too large of a company database size: Database managers such as the one Sage 50 uses, Pervasive, have a much easier time managing smaller data sizes. Sage 50 suggests keeping data size below 500 MB. When logged into your company, you can browse to Help/Customer Support and Service/File Statistics and scroll to the bottom where the Grand Total is to find the total data size. If data size is over 500,000 KB, it is suggested to Purge Data from closed years.
7. Connected to the network via wireless router: Running Sage 50 on a machine connected to the network via wireless router can cause multiple drops over the network. When this happens, this causes the files to lock into the system leaving the files in a state of vulnerability. Sage works best in a network that is hard-wired as it alleviates the possibility of the loss of connection to the network.

Photo data corruption; in this case, a result of a failed data recovery from a hard disk drive.



Open Data and Corruption

Technology has made a great involvement throughout the years, so have the methods that can be used in order to corrupt. With millions of gigabytes of data produced every day by governments and businesses worldwide, whole new avenues open up for the fight against corruption. When government data and other data relevant to governance is open, accessible and interoperable, the possibilities for scrutiny and accountability increase immensely.

In recent years, governments around the world have increased the availability of their data – creating a growing amount of open data that can be freely used, modified and shared by anyone for any purpose. By enabling increased transparency in government activities, budgets and expenditures, open data becomes a critical ingredient in accountability interventions. The argument is clear: Not only should open data reduce the mismanagement and misallocation of resources, but also helps secure a transparent, more accountable exchange between governments and citizens.

However, the two fields of anti-corruption and open data have been developing independently of each other, thus missing crucial opportunities for value-added through harmonisation. Forthcoming Transparency International and Web Foundation Research into the use of open data in five G20 countries finds that the potential of open data has not been leveraged sufficiently in the fight against corruption. In order to create a well-functioning anti-corruption regime, there needs to be a targeted effort to connect open data to anti-corruption efforts.

The Solution

There are numerous ways open data can drive anti-corruption. Lobbying registers can show who is spending most time with our elected officials, public procurement data can expose companies that receive preferential treatment at the expense of our national coffers, and political party finances can hint at agendas driven by private interest. What is more, when these datasets can be merged and triangulated, they can reveal patterns or show noteworthy gaps that reflect corrupt conduct. There is no substantial evidence of programmes, training workshops, tools or guidelines aimed at improving data literacy among anti-corruption professionals and activists in any of the five countries reviewed. This means that public officials, investigative journalists and civil society may miss opportunities to better prevent or detect corruption. In some countries like Indonesia, this can be attributed primarily to a technological gap, however countries with more advanced ICT capabilities like France and Germany are also struggling when it comes to incorporating open data in their anti-corruption strategies, corruption prevention efforts and training.

In some cases, civil society and investigative journalists have shown the ways open data can be used for anti-corruption. In Germany and France digital tools were developed for citizens to scrutinise donations and contracts that their doctors receive from different pharmaceutical companies. In sum, civil society and media have stepped in where governments have failed to link open data and anti-corruption.

Mainstream Media

The term Mainstream Media usually refers to large newspapers, both printed and digital, and public or private broadcasting services, which can reach and affect the majority of the population. For this reason, the topics and issues that will be discussed and made known to the public are up to their discretion (“agenda setting media”). Mainstream Media are also characterized by their ownership structure, which means that, especially in Less Economically Developed Countries (LEDCs), they are state-owned and sometimes less effective in monitoring government activities since the journalists’ work could be hindered. This is a major problem bearing in mind that these Media mostly shape collective thinking.

Alternative Media

The alternative media include civic journalism and social media. In civic journalism, in contrast to other types of journalism, engages citizens to take action instead of just informing them. Civic journalism stands for the democratization of the media and underlines the need for the media to seek solutions rather than be a passive observer. On the other hand, social media have given citizens the opportunity to report on anti-corruption and the people have taken impressively effective action by sparking widespread debate in social media about corrupt public officials or politicians. All in all, the alternative media encourage citizens to directly report on crimes like corruption.

Satire

Satire as a media genre is based on humour, cynicism, exaggeration and ridicule as a way to criticise and denounce social grievances like corruption. Satire is an effective way to tackle and raise awareness about corruption especially in Cambodia. According to cartoonist Sam Sarath of the Center for Social Development (CSD) on Cambodia: “All the cartoons I draw now focus on four concepts: transparency, governance, management, and corruption. Why? Because CSD knows that many people in the provinces have little ability to read”. In conclusion, satire can educate the less- educated people about what corruption means and its detrimental effects on society, which will gradually empower them to demand their rights.

Investigative journalism

There is no doubt that investigative reporting is the media genre that has the most significant impact against corruption. In fact, according to studies, in numerous countries, most of the people believe that this kind of journalism is more effective than national anti-bribery laws. The spectrum of investigative journalism is very wide, but in general investigative Journalism means the unveiling of matters that are concealed and the analysis and exposure of all relevant facts to the public. Typically, the original information that is produced by investigative journalists is made known to the public via mainstream and alternative media. The groundbreaking, proactive, critical nature of investigative reporting can cause the aggressive reaction of those involved in scandals.

The fight of the media against corruption through the years and problems that journalist face

Unfortunately, journalists are often heavily targeted with censorship, lawsuits, physical assault, murder and imprisonment for their journalistic work. There are numerous examples of the high cost that journalists pay for their anti-corruption work. To name just a few:

- In 2018, the Bulgarian investigative reporter Viktoria Marinova was murdered one month after she uncovered the misappropriation of EU funds with bribes being distributed at all levels. She also accused the EU's anti-fraud office (OLAF) of being ineffective. Her report had as a result that the prime minister stopped the European funded projects in question and OLAF began to investigate the case. Her murder sparked a public outcry not only in Bulgaria but also all around the globe. So did the murder of the Slovak investigative journalist Jan Kuciak, who also showed that that government had been covering up organised crime for more than ten years. Kuciak's murder led to the biggest protests since the fall of communism and led to the designation of the then-prime minister Robert Fico.
- Not all investigative journalists risk their lives, but many of them are exposed to judicial reprisals. In Turkey hundreds of reporters have been prosecuted by President Erdogan after referring to corruption. In Russia, Alexander Sokolov has become a symbol of the persecution of those who dare to shed light on large-scale corruption in this country. In Canada, Ornstein was sentenced to 20 months of

prison for accusing Canadian businessman Monte Friesner about allegedly illegal practices. In Malaysia cartoonist Zulkiflee Anwar Haque, facing up to 43 years in prison on nine counts for posting nine cartoons on Twitter about alleged corruption within the Prime Minister and the trial of his opponent Anwar Ibrahim.

The above-mentioned cases reveal that this situation is a worldwide phenomenon, which means that it doesn't only take place in the LEDCs but also in the MEDCs. It also shows the difference that journalism makes in every society and in the fight against corruption. Journalism is an essential part of democracy and of a functioning society and, thus, the journalists shouldn't be afraid to unveil the truth. For this reason, a strong legal framework is necessary.

MAJOR COUNTRIES AND ORGANISATIONS INVOLVED

As it has been already stated, in most countries, corruption is the most dangerous story to cover for journalists. Due to the fact that the problem is global, it would be a mistake to name just a few countries involved. However, we could point out the extent of the problem in each country and how the problem is handled.



Journalists detained around the world

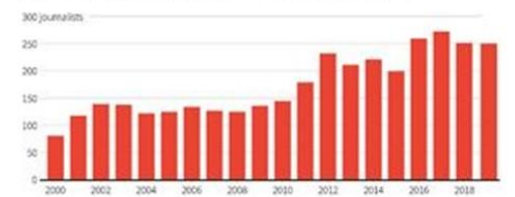
The Committee to Protect Journalists found that at least 250 journalists are currently imprisoned around the world due to their work, as of December 1, 2019

Turkey and China have the most journalists imprisoned

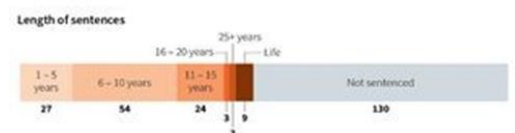


Number of journalists imprisoned

Figures are a snapshot of those in prison at the time of publication of each annual CPI report

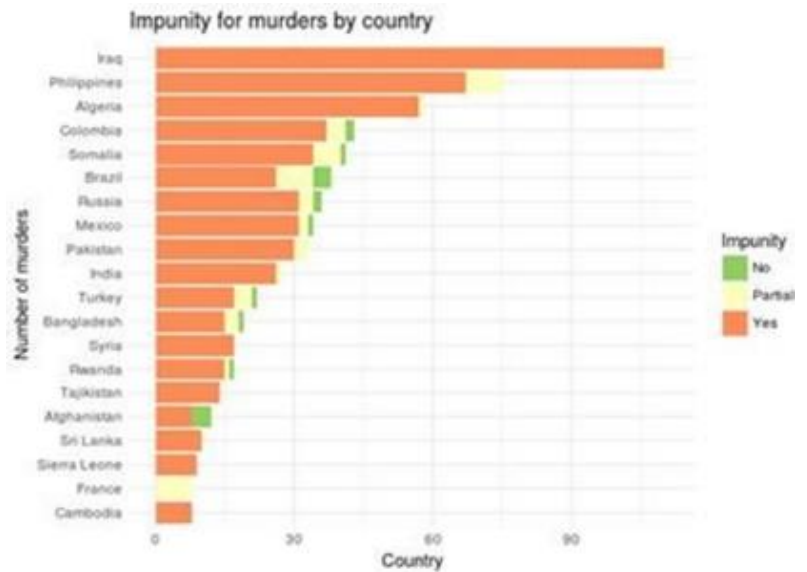


250 journalists imprisoned in 2019



Committee to Protect Journalists (CPJ)

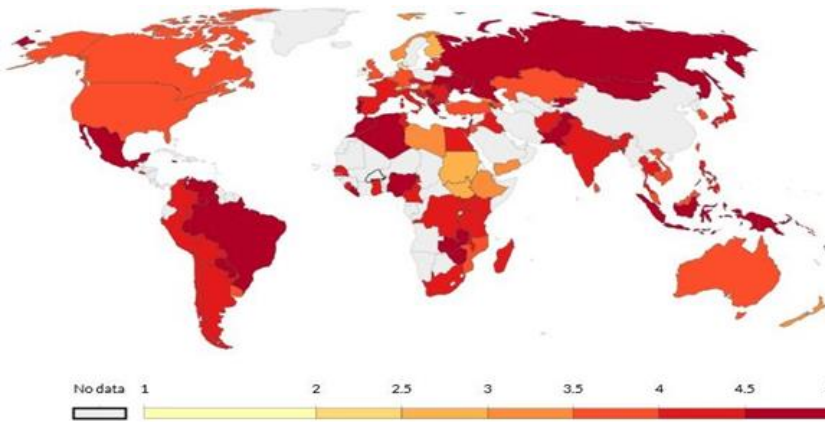
The Committee to Protect Journalists is an independent, nonprofit organization that stands for press freedom around the world. It defends the right of journalists to report the whole truth, even if it exposes people in power, safely and without fear of retaliation. It protects freedom of speech by acting in case journalists are under threat.



United Nations Educational, Scientific and Cultural Organization (UNESCO)

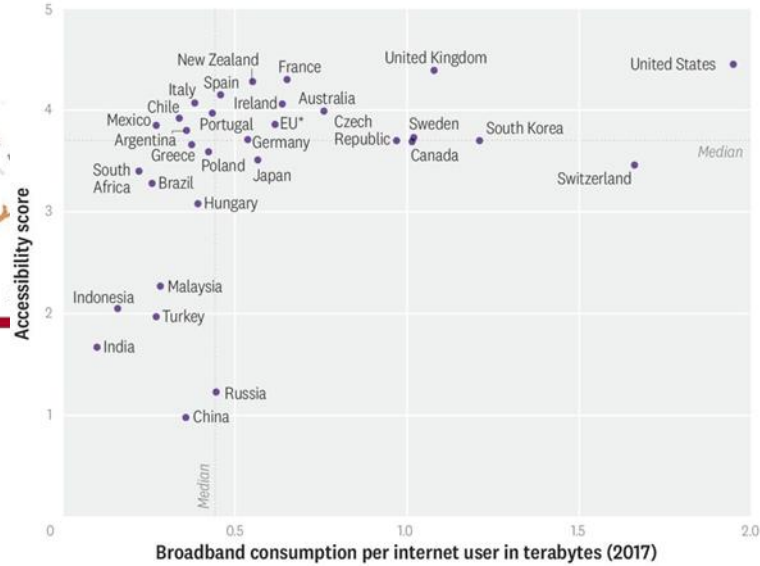
UNESCO is the United Nations Educational, Scientific and Cultural Organization. The role media can play as a watchdog is indispensable for democracy and it is for this reason that UNESCO fully supports initiatives to strengthen the capacity building of investigative journalism throughout the world. For example, after UNESCO published, in collaboration with the organization “Arab Reporters for Investigative Journalism”, a manual for investigative journalism in the Arab States in 2009, which can be found under the title “Story-based Inquiry: A manual for Investigative Journalists”, it went on to present “The Global Investigative Journalism Casebook” as an additional training material.

DATA Corruption in our world



A New World Data Order That Emphasizes Openness and Digital Evolution

Countries that rank highest in data accessibility and broadband consumption per user are clear winners.



*The EU data point contains 12 EU countries and almost 81% of the EU population. Source: Analysis of Euromonitor, Cisco, ITU, Global Open Data Index/Open Government Partnership, and CNIL data by The Digital Planet initiative at The Fletcher School, Tufts University, and Mastercard

While the **U.S.A.** scores well on all three criteria – and this might seem counter-intuitive to prevailing wisdom — **China** operates with a handicap if global accessibility of the data is considered essential for creating successful Access list applications in the future. If the EU (currently including the **UK**) were to act as a collective, it represents a key producer that could rival the U.S.A. Besides, China, other BRIC nations, **Brazil, India, Russia**, could emerge as strong tier two contenders, largely on the strengths of raw data they produce.

A different set of implications emerge for smaller countries, such as **New Zealand**, or those unaffiliated with larger economic unions, such as **South Korea**, but with high openness and mobility in data flows; such countries would benefit from establishing trade agreements in data with other “open” countries and thereby overcome their natural limitations, either in terms of number of users or in terms of total broadband consumed within the country. The forms such trade or data-sharing agreements might take is yet to be determined. However, we can envision that they could be a distinct possibility especially when we recognize that gross data product has value just like any other product that is freely traded today.

TIMELINE OF EVENTS

Date	Description of Event
1960	Computerized database started in the 1960s, when the use of computers became a more cost-effective option for private organizations. There were two popular data models in this decade: a network model called CODASYL and a hierarchical model called IMS. One database system that proved to be a commercial success was the SABRE system that was used by IBM to help American Airlines manage its reservations data.
1970-1972	E.F. Codd published an important paper to propose the use of a relational database model, and his ideas changed the way people thought about databases. In his model, the database's schema, or logical organization, is disconnected from physical information storage, and this became the standard principle for database systems.
1976	A new database model called Entity-Relationship, or ER, was proposed by P. Chen this year. This model made it possible for designers to focus on data application, instead of logical table structure.
1980	Structured Query Language, or SQL, became the standard query language.
2000	Although the Internet industry experienced a decline in the early 2000s, database applications continue to grow. New interactive applications were developed for PDAs, point-of-sale transactions, and consolidation of vendors. Presently, the three leading database companies in the western world are Microsoft, IBM, and Oracle.

UN INVOLVEMENT: RELEVANT RESOLUTIONS, TREATIES AND EVENTS

UN Resolutions: International Covenant on Civil and Political Rights

Assembly Resolution 2200 A (XXI), 16 December 1966, which is binding on more than 165 countries, Article 19 aims to protect the freedom of expression, stating clearly that any restriction It is the most important UN Resolution regarding the matter. In the UN General of this right should be provided by law and only for the protection of the rights of others and for reasons of national security, public order, public health and morals.

Universal Declaration of Human Rights

The UN General Assembly Resolution 217 A (III) voted on the 10th of December in 1948 clearly states in Article 9: “No one shall be subjected to arbitrary arrest, detention or exile.”.

Chapter 1: Data Management, Governance and Interoperability

Data issues need to be considered as cross-cutting, in the same way that gender, human rights and partnerships’ issues currently are in the development field. As such, they require far more cogent management, funding, oversight and coordination than they are currently afforded.

This section explores the concepts of data interoperability and integration, management and governance in more detail; highlighting some useful institutional tools and examples that can help practitioners in the development of their data management and governance strategies. It sets out the various institutional frameworks and models of data governance that exist, explains the need for oversight and accountability across the data value chain, and the need for effective legal and regulatory frameworks.⁹

United Nations Convention against Corruption (UNCAC)

The United Nations Convention against Corruption is the only legally binding universal anti-corruption instrument. The Convention's far-reaching approach and the mandatory character of many of its provisions make it a unique tool for developing a comprehensive response to a global problem. The Convention covers five main areas: preventive measures, criminalization and law enforcement, international cooperation, asset recovery, and technical assistance and information exchange. The Convention covers many different



⁹ <https://unstats.un.org/wiki/pages/viewpage.action?pageId=36144005>

forms of corruption, such as bribery, trading in influence, abuse of functions, and various acts of corruption in the private sector. A highlight of the Convention is the inclusion of a specific chapter on asset recovery, aimed at returning assets to their rightful owners, including countries from which they had been taken illicitly. The vast majority of United Nations Member States are parties to the Convention.

UNODC's Action against Corruption and Economic Crime

The United Nations Convention against Corruption is the only legally binding universal anti-corruption instrument. The Convention's far-reaching approach and the mandatory character of many of its provisions make it a unique tool for developing a comprehensive response to a global problem.

PREVIOUS ATTEMPTS TO SOLVE THE ISSUE

Many previous attempts have been made in order to combat the problem of corruption. Firstly, many discussions have been conducted by the UN, setting goals for a future where there is transparency. The battle against corruption was vital to the success of the 2030 Agenda for Sustainable Development, General Assembly President Miroslav Lajčák (Slovakia), told delegates today, noting that corruption stifled growth and development. During a high-level debate to mark the fifteenth anniversary of the Assembly's adoption of the United Nations Convention against Corruption, the President said that institutions, businesses and citizens suffered as corruption destroyed everything in its path. "When they are stopped at checkpoints for bribes, when a bus doesn't come or a clinic doesn't open because budgets are mismanaged," it was ordinary people who endured the consequences, he noted: *While Sustainable Development Goal 16 dealt explicitly with corruption, in fact, the success of the entire 2030 Agenda for Sustainable Development hinged on fighting corruption, he pointed out. Governments must not only legislate, implement and enforce laws, but also enlist the media, the private sector, civil society and academia in the battle, he*

stressed, describing the 2003 Convention as the bedrock of the international community's anti-corruption efforts.

Previous attempts have also been made by the European Commission. The Treaty on the Functioning of the EU recognises corruption as a "euro-crime", listing it among the particularly serious crimes with a cross-border dimension for which minimum rules on the definition of criminal offences and sanctions may be established. Since then, the EU Anti-Corruption Report has served as the basis for dialogue with national authorities while also informing broader debates across Europe. All EU countries have designated a national contact point to facilitate information exchange on anti-corruption policy. Together with the anti-corruption experience-sharing programme launched by the Commission in 2015, these efforts have encouraged national authorities to better implement laws and policies against corruption.

POSSIBLE SOLUTIONS

It has become clear that data management and data corruption are problems of great importance that must be immediately be combated. Therefore, the delegates must consider the following while formatting their resolutions.

1. The process of data management is a very complicated and long-term procedure, thus people cannot often abide by it and as a result corporations are taking advantage of people's personal data for their own personal interest. Regarding that, delegates must think on how to end data corruption via various means always according to the law and in agreement with each county's policy and beliefs.
2. As far as the role of Media is concerned, it must be noted that when referred to Media, we mean all kinds of electronic devices and not just the mass media. Thus their role can be vital as far as anti-corruption is concerned.
3. Taking into consideration the part of the SG, where journalists' rights get violated, delegates can make a

reference to the humane part of data management and computer science by referring to the United Nations Convention of the Human Rights, so as to invoke other countries' delegates' emotion.

Useful Links For Further Research

- https://www.researchgate.net/publication/325405932_Media_and_the_Civil_Society_in_the_Fight_against_Corruption_The_Case_of_Nigeria
- <https://www.u4.no/publications/overview-of-corruption-in-the-media-in-developing-countries.pdf>
- <http://journal.rais.education/index.php/raiss/article/view/81/60>

BIBLIOGRAPHY

“(PDF) The Media Role in Curbing Corruption.” *ResearchGate*, www.researchgate.net/publication/265232533_The_Media_Role_in_Curbing_Corruption.com

Anonymous. “Corruption.” *Migration and Home Affairs - European Commission*, 6 Dec. 2016, https://ec.europa.eu/home-affairs/what-we-do/policies/organized-crime-and-human-trafficking/corruption_en

“Battle against Corruption Vital to 2030 Agenda, General Assembly President Tells High-Level Commemoration of Anti-Corruption Treaty's Adoption | Meetings Coverage and Press Releases.” *United Nations*, United Nations, www.un.org/press/en/2018/ga12017.doc.htm.

Bhaskar Chakravorti, Ajay Bhalla and Ravi Shankar Chaturvedi. “Which Countries Are Leading the Data Economy?” *Harvard Business Review*, 24 Jan. 2019, <https://2019/01/which-countries-are-leading-the-data-economy>

Data Corruption and Loss: Causes and Avoidance,

www.thexlab.com/fags/datacorruption.html.

“Media and Corruption.” *U4 Anti-Corruption Resource Centre,*

www.u4.no/publications/media-and-corruption.

“Prevent Data Corruption.” *GMG Communications,*

www.gmgcommunications1.com/prevent-data-corruption/.

Quick Base. “A Timeline of Database History.” *Quick Base,*

www.quickbase.com/articles/timeline-of-database-history.

What Causes Data Corruption?,

<https://support.na.sage.com/selfservice/viewContent.do?externalId=69520>

“What Is Corruption?” *Transparency.org,* www.transparency.org/en/what-is-corruption