

# DATASPHERE FELLOWSHIP REPORT 2021-2022

ADVANCING RESEARCH AND RESPONSIBLE GOVERNANCE FOR AN INCLUSIVE DATASPHERE

FELLOWSHIP **2021-2022** 

#### **ABOUT THE DATASPHERE INITIATIVE**

The Datasphere Initiative is a global network of stakeholders fostering a holistic and innovative approach to data governance. By cultivating dialogue and connecting communities, the Datasphere Initiative connects sectoral silos and people to build a collaboratively governed datasphere and responsibly unlock the value of data for all.

For more information, visit www.thedatasphere.org or contact info@thedatasphere.org.

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#### **ACKNOWLEDGEMENTS**

The paper was authored by the Datasphere Initiative team, led **Carolina Rossini**, co-founder and Director of Policy and Research, and **Mariana Rozo-Paz**, Research Associate.

The report counted editorial support from **Sophie Tomlinson**, Director of Partnerships and Communications.

The report has been designed by **Natalia Loungou**, Events & Communications Coordinator.

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#### INTRODUCTION

The Datasphere Fellowship is an international, interdisciplinary, and peer-learning program bringing together a community of young researchers and practitioners to think critically about concepts, narratives, and solutions that can advance the Datasphere Initiative's mission to responsibly unlock the value of data for all.

The goal of the Datasphere Fellowship is to mentor selected young researchers to bring their own knowledge and research agenda related to data governance, working on think pieces and case studies that build on their own disciplines and experiences while also contributing to a joint publication to be presented in a final public event concluding the Fellowship.

The Datasphere Fellowship also aims to build a dedicated community for research and practice on data governance by serving as a platform to support Fellows and the previous cohorts of Fellows throughout their careers and development of research agendas.

The Fellowship is an integral part of the activities of the Datasphere Initiative and is designed to complement other projects and programs of the organization. Fellows have access to the Datasphere Initiative's network of policymakers, company leaders, practitioners and academics that will be leveraged to inform ongoing discussions and research projects. They also have access to Datasphere Initiative's content distribution channels to publish their own research when related to the issues above and align with the Datasphere Initiative's vision and mission. On an opportunity basis, they join global events or receive the Datasphere Initiative's team support in organizing their own event. Content and tools generated by the Fellows are documented and shared broadly to contribute to evidence-based policy-making and the identification of innovative solutions for global data challenges.

From October 2021 to October 2022, eight fellows from eight different countries came together as the first cohort of the Datasphere Fellowship to build on the concept of the "datasphere" and conduct research on issues ranging from data quality, the metaverse, and health data, to new European norms, platform transparency, and Open Data.

This report provides an overview of their outputs and key learnings, presenting how their work has contributed to furthering understanding of the concept of the datasphere and the ways in which diverse policy issues are impacting our ability to responsibly unlock the value of data for all.

The Datasphere Fellowship Program was coordinated by Carolina Rossini, co-founder and Director of Policy and Research, and counted with the support of Sophie Tomlinson, Director of Partnerships and Communications, Mariana Rozo-Paz, Research Associate, Natalia Loungou, Communications and Events Coordinator and Laura Aade from the Datasphere Initiative team. The fellows also counted with support and mentoring from Lorrayne Porciuncula, co-founder and Executive Director, Martin Hullin, co-founder and Deputy Executive Director and Bertrand de La Chapelle, co-founder and Chief Vision Officer.

#### **KEY LEARNINGS**

The Fellowship uncovered the myriad of applications and uses of the concept of the datasphere and helped to hone the concept and apply it to policy issues from protection of health data, to governance of the metaverse to access to electronic evidence. Discussions throughout the Fellowship underscored how practitioners across sectors and research disciplines are grappling with the same problem: how to responsibly unlock the value of data and address the global and cross-sectoral impact of an increasingly fragmented set of technical and policy data governance norms and practices.

Below are some important learnings from the Fellowship which the Datasphere Initiative will be taking on board in its policy and practice in the years to come:

# 1. Data Governance is a growing field that's bringing together many distinct disciplines

Just over a decade ago, data governance was largely absent from academic literature, being mostly a term found in IT management handbooks. Today, hundreds of papers are published every year, and numerous organizations frame their mission around a piece of it and it is frequently discussed in policy debates.

# 2. Common problems point to a need to connect technical and policy angles

Many approach data governance within the context of a particular disciplinary standpoint – be it healthcare, agriculture, or security. Whatever the sector, there is close interconnection, yet separation between the technical and policy layers when studying data governance. More interactions are needed between policymakers and technical communities.

# 3. Terminology is impacting the use and sharing of data

The lack of shared terminologies, data standards, and data interoperability is impacting practitioners' abilities to responsibly unlock the value of data to its fullest potential. The embedding of a particular definition in legislation may have a real-life impact on how people can actually cooperate and share data. Examples of cataloging and connecting naming conventions for data categories used in livestock population, highlights some of the challenges that arise when policies specify different definitions of data categories.

# 4. There is a tension between national policy objectives and the global externalities of these actions

Many governments are dealing with the challenge of benefitting from the exchange of data and the desire to control it - and there are significant differences in approaches to addressing this tension. In the European Union, rules introduced by the Data Governance Act and the Data Act underpin a renewed geopolitical ambition of the European Commission in global data governance discussions. Brazil, on the other hand, faces a dilemma on the scale of flexibility and rigidity it aims to take with facilitating data transfers. While in Africa, through initiatives such as the African Union Data Policy Framework, is seeking to establish its own path in managing data flows across the region.

Innovation, scalability, and replication of regulatory objectives are key factors that legislators should explore when designing policies with extraterritorial impacts to avoid further fragmenting approaches to the management of global data flows.

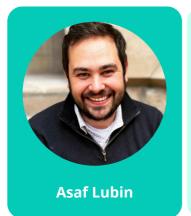
# 5. Communities are starting to understand the value of data but face governance challenges

As more and more populations start to understand the potential value of their data, different datasharing communities are on the rise, notably: data trusts, data collectives, data fiduciaries, and even data unions. However, transparency often has a limited role in ensuring accountability in data governance and how the lack of data literacy can act as a barrier to data subjects fully leveraging their rights. In the health sector, patient-centric approaches to the collection of health data point to examples of how communities themselves can play an active role in standardizing and building standards on the ground to allow for data sharing.

# 6. A holistic approach to data governance means understanding not only how data is used but also why it is collected

Understanding the use of data and the action it enables can vastly impact the selection, the representation and thus the value of data itself. The use of data in times of war presents the current human rights frameworks at play and the need for future international legal frameworks to protect digital rights in times of armed conflict.

#### THE FELLOWS



Dr. Asaf Lubin is an Associate Professor of Law at Indiana University Maurer School of Law and a Fellow at IU's Center for Applied Cybersecurity Research (CACR), mainly researching on the regulation of cybersecurity harms, liabilities, and insurance as well as policy design around governmental and corporate surveillance, data protection, and internet governance from an international law perspective.

#### **Research Scope**

How public international law supports or creates barriers for international data flows



Benjamin is a Ph.D. Informatics research student at the Namibia University of Science and Technology, and ICT4D practitioner for more than 10 years in Nigeria and West Africa.

# **Research Scope**

Governance of Health Data in African countries and the perspective of patients' rights.



**Christian Perrone** 

Christian is a Ph.D. Candidate at UERJ and a Fulbright Scholar at the Georgetown Law Center with a particular focus on international regulation and technology.

#### **Research Scope**

International data transfers and trends and challenges for the Brazilian Privacy Law.



**Francesco Vogelezang** 

Francesco is a policy analyst at the Open Future Foundation – a think tank for the open movement – where he conducts policy research on European data governance files, focusing on the Data Commons.

#### **Research Scope**

The European Data Strategy and emerging norms - the Data Governance Act and the data Act - trends and challenges.

#### THE FELLOWS



Kassy is a doctoral student in Computational Sciences with a Collaborative Specialization in One Health in the School of Computer Science at the University of Guelph, and the Technical Manager for the Global Burden of Animal Diseases (GBADs) Informatics theme.

# **Research Scope**

Data quality and crossborder ontologies and standard interoperability in the field of livestock.



Magdalena Ewa Jóźwiak Magdalena is an Amsterdam-based researcher and lecturer currently working at the Faculty of Law of Tilburg University, The Netherlands focusing on how the conflicts between human rights in the digital public sphere are managed and resolved.

# **Research Scope**

Data governance and platforms accountability and transparency, through a gender lens.



**Nashilongo Gervasius** 

Nashilongo Gervasius is a Digital Policy Researcher, Media and Communications Specialist and Trainer and Development Practitioner from Namibia, interested in digital policy, media development and development.

#### **Research Scope**

Supporting knowledge and advocacy of new open data models for African Countries' governments.



Tim Davies
Senior Fellow

Tim is an independent consultant, researcher and facilitator exploring the critique, creation and maintenance of data infrastructures for the public good, and working on developing global open data standards for transparency initiatives.

#### **Research Scope**

The concept of data governance and the emergence of the datasphere concept.

#### **HIGHLIGHTS AND OUTPUTS**

#### **BRINGING A COMMUNITY TOGETHER**

From October 2021 to October 2022, the Datasphere Fellowship 2021-22 held 11 monthly meetings. In each one of the monthly meetings, a tour de table was conducted where fellows shared highlights, updates and their respective progress in their individual research outputs and joint activities. The Datasphere Initiative team also facilitated a number of one-on-one mentoring sessions and dialogue with external guests.



Thorsten Dittmar and Laird Brown, from polypoly, presenting on the PolyPoly Ecosystem and polypedia.



Martin Pompéry, from the SINE Foundation, presenting their work and their solutions to data sharing.



Abi Nokes, from the School of International Futures, presenting the Next Generation Foresight initiative.



Christian Buggedei, presenting the Australian data startup that fosters political engagement.

These efforts were aimed at building a community between fellows, exploring the concept of the datasphere and its implications, as well as facilitating exchanges between fellows and external experts and practitioners on sectoral and regional challenges and innovative tools to responsibly unlock the value of data for all.

#### ADVANCING THE CONCEPT OF THE DATASPHERE

A key goal of the Datasphere Fellowship 2021-22 was to hone the concept of the datasphere, leveraging the insights and perspectives from the global and multidisciplinary group of fellows to define and understand the problems and potential of this emerging concept.

The following outputs were presented by the Datasphere Initiative team and benefitted from the exchanges with Fellows.



Framing paper on the datasphere "Hello Datasphere: Towards a Systems Approach to Data Governance" (2022).





Organizational Benchmark of the Data Governance Ecosystem: The Datasphere Governance Atlas (2022) identified 260+ entities dealing with some aspects of data governance in a repository. From International Organizations, and Governments, to civil society, and academia, the Atlas has a broad coverage of organizations and their core efforts in this space. Preliminary analysis shows that there is a need to connect people and bridge sectoral silos.





Innovative frameworks: The Sandboxes for Data Report (2022) identified how cross-border sandboxes for data could help address data value chains (cross-border by nature) and support innovative solutions for data cooperation (operational or regulatory) across borders.



Core fellow-led outputs contributing to expanding the understanding of the concept of the Datasphere, were:



The Data Governance and the Datasphere Literature Review provides a preliminary mapping of academic literature on data governance and explores the emerging conceptual framework of the "Datasphere".



**Wikipedia article** on the concept of the datasphere

Moreover, fellows also incorporated the concept of the datasphere throughout their different deliverables, such as their videos and blogs, as highlighted below:

#### Why a patient-centric approach is necessary for data governance in the healthcare sector

Benjamin Akintunde Akinmoyeje highlights the importance of a patient-centric approach to healthcare that is related to the datasphere. The concept of the datasphere implies a transition from a siloed approach to data to an interrelated, collaborative and multistakeholder approach. Patients are critical stakeholders in digital health and bridging the silos is key to including all in digital health technologies.

# Requesting access to data overseas: challenges and opportunities, a view from Brazil

Christian Perrone develops a proposal of e-evidence toolboxes in order to include what he calls a "datasphere approach". He stresses that Law Enforcement Agencies' (LEA) approach to digital rights can be rethought through the context of the datasphere.

# What we mean when we talk about platform transparency

Magdalena Ewa Jóźwiak argued that transparency, "while useful, in its current form under EU norms, is hardly a meaningful strategy for protecting individuals' rights in the context of the datasphere". She related transparency to ill-practices that lead to complacency and unfounded trust in big platforms, to "digital resignation" and consent fatigue, "only further embedding current data-laden business models rather than empowering users". Through her blog post, she addressed the power imbalances present in the datasphere (e.g., disinformation, manipulation, discrimination, segregation and other forms of abuse of power). She concluded by pointing to trustees' responsibility to manage data according to agreed rules and values: "such new ideas revolutionize the current models of using data, but perhaps nothing short of a revolution is needed for a fair and innovative datasphere.

## **Governance in the metaverse**

Asaf Lubin explored how the evolution of the metaverse "is set to transform the datasphere and thereby the regulation of our interconnected and interdependent digital lives". He argued that by expanding digitization in our lives, the datasphere is expanding. Lubin added that:

# The EU Data Governance Act: a tale of two cities for the datasphere

Francesco Vogelezang dives into the contrasting effects of the Data Governance Act poses to global data governance. There are internal and external consequences of the new regulation in the EU, which has dual effects on the datasphere.

# <u>Graph data in the datasphere: How graph databases can help us understand the dataconnections in the datasphere</u>

Kassy Raymond explains that visualizing data in the datasphere implies "reframing our thinking about data as connected entities and changing the narrative of data through understanding who it impacts, who uses it, and how it relates to each other." Overall, she emphasizes the need to graph data by thinking on the data relationships.

# <u>Graph Data in the datasphere: Mapping livestock population data categories using graph</u> databases

Kassy Raymond refers to the ways in which data can be categorized within the datasphere. According to her, "analyzing the interoperability of standard naming conventions in the datasphere is more than just linking data within sectors; we must consider how data is described and categorized between sectors and organizations to have a true understanding of the intrinsic interconnectedness of the data."

# The Data Act: five implications for the datasphere

Francesco Vogelezang highlighted five implications of the European Commission's Data Act on the datasphere: 1) business-to-consumers; 2) business-to-business; 3) business-to-government; 4) interoperability; and 5) cross-border transfers.

#### **How Open Data Supports Value Creation**

Nashilongo Gervasius relates the concept of the datasphere to Open Data, which is one of the many forms of data governance. However, she stressed that the concept of the datasphere is useful and captures that open data.

#### FOSTERING ACADEMIC RESEARCH IN A EMERGING FIELD

The Datasphere Fellowship enabled fellows to be creative in the delivery of their outputs through the production of video, blogs and organization of events. Moreover, it also encouraged the production of academic papers that allowed fellows to deepen their analysis related to critical data governance challenges. Examples of research papers produced in the context of the Datasphere Fellowship include:



# SUPPORTING THE INCLUSION OF DIVERSE PERSPECTIVES IN DATA GOVERNANCE DISCUSSIONS

As part of the Fellowship program, the Datasphere Initiative actively identified and supported the participation of fellows in a variety of events, including:

- Launch of the Datasphere Initiative Kassy Raymond participated as a speaker in a panel on responsibly unlocking the value of data for all.
- **African Internet Governance Forum** Nashilongo Gervasius spoke at a workshop organized by the Internet & Jurisdiction Policy Network.
- Cross-border digital policies for Africa knowledge dialogues Benjamin Akintunde Akinmoyeje and Nashilongo Gervasius spoke at a workshop organized by the Internet & Jurisdiction Policy Network.
- Data, Human Groups, and Norms: An Exchange on International Law and the datasphere Asaf Lubin, Tim Davies and Francesco Vogelezang participated in this conference co-organized by ASIL's International Law & Technology Interest Group.
- Canadian Open Data Summit Kassy Raymond participated as a speaker in a session organized by the Datasphere Initiative.

#### **NEXT STES**

The Datasphere Initiative is grateful for the energy and substance Fellows and partners have contributed to the first year of the Fellowship and looks forward to future interactions and community building with the 2022-2023 cohort.

Building on the insights of the first cohort, the Datasphere Initiative welcomed the second cohort of Fellows for 2022/2023. 8 Fellows will receive mentorship from the Datasphere Initiative team and partners around the globe to think critically and develop research and solutions outputs for pressing challenges related to data governance and the Sustainable Development Goals (SDGs).

Read more about the 2022/2023 Datasphere Initiative Fellows and their research agendas here.

# **Geographical Distribution of 2022-2023 Fellows**



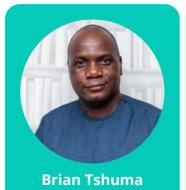


Francesca De Chiara

Francesca is a researcher and consultant working on developing and promoting data sharing at the institutional and community level. She is a digital policy expert and analyst in the national Italian team at the Open Government Partnership (OGP).

# **Research Scope**

New regulations in the European Union and their effect on all types of stakeholders.



Brian is an early-stage researcher on data, datafication and datafied societies. He is pursuing doctoral research on Governance of Emerging Technologies in the Global South at London Kings College, UK.

# **Research Scope**

Data governance models and data stewardship for public, charitable or educational purposes.



**Laura Sandor** 

Laura is a MSc graduate from Utrecht University in The Netherlands where she studied Social Policy and Public Health researched European policies around Artificial Intelligence in pharmaceutical promotion and marketing strategies.

# **Research Scope**

The benefits of crossborder flows for healthcare using COVID-19 as a case study.



**Gabriel Souto** 

Gabriel Souto is a Brazilian researcher, lawyer, and founding member of the Laboratory of Public Policy and Internet (LAPIN). He is an LL.M. student at Georgetown University.

#### **Research Scope**

The causes of low data governance boards in Latin America, law enforcement and the costs of data governance boards in the region.



Arindrajit Basu is a researcher focusing on the intersection of geopolitics, global governance and technology. He is a Non-Resident Research Fellow at the Centre for Internet & Society.

# **Research Scope**

Evidence-based assessment of data localization directives in India and its impacts.



Lukman Ismaila is a doctoral researcher in deep learning applications for medical imaging with a speciality in "neurosurgical planning for brain tumor removal" at LARIS Laboratory, University of Angers, France.

# **Research Scope**

Research on the accessibility of pan-African medical data for research purposes.



Miriam Wimmer Senior Fellow

Dr. Miriam Wimmer is a researcher and a professor of Law at IDP, in Brazil, focusing on the intersection of Law and technology. She is a researcher at the Center for Law, Internet, and Society (CEDIS), focusing on data protection and fundamental rights, as well as artificial intelligence, ethics, and the Law.

#### **Research Scope**

Discussing and understanding innovative governance mechanisms that may enable data flows that are inclusive and respectful of human rights.



Bernise Ang Senior Fellow

Bernise Ang is a Chief Alchemist at Zeroth Labs, a research and innovation lab on complex adaptive systems. Her work at Zeroth Labs involves blending disciplines from anthropology, data science, design, behavioral science, foresight methods and system dynamics in order to bring clarity to complexity.

# **Research Scope**

Exploring the ways in which the properties of complex adaptive systems may be expressed in data governance, including how to characterize some of the interaction dynamics within such systems.

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