Fair Data Fair Africa Fair World:

Internationalisation of the Health Data Space

About the Authors and Editors

ABOUT THE AUTHORS AND EDITORS

Ibrahim Abdullahi (author)

Ibrahim Abdullahi is a Lecturer in the Department of Mathematics and Computer Science at Badamasi Babangida University, Lapai, Nigeria, where he has been teaching and conducting research since 2010. He also serves as the Security Officer for the VODAN Africa initiative, supporting the development of secure and responsible health data infrastructures across the continent. He holds a PhD in Computer Science from Universiti Utara Malaysia (2016), with a dissertation focused on optimizing content delivery in Information-Centric Networks (ICNs). His publications include Co-Design and Evaluation of a Virtual Chemistry Laboratory (Viche-Lab) for education, Analysis of Complexity of Some Combinatorial Algorithms Using Halstead Metrics and Time Measures, as well as, WormGPT Large Language Model Chatbot for Criminals. Abdullahi's research interests include digital education, cybersecurity, artificial intelligence, and the application of data science in solving real-world problems.

Aliya Aktau (author)

Aliya Aktau is a PhD researcher at Leiden University Medical Center (LUMC), where she focuses on the implementation of FAIR data infrastructure and advanced data analytics. Her passion for responsible data management was sparked during her master's studies at Leiden University and further developed through her involvement with the VODAN-Africa research initiative since 2020. Her research supports global efforts to improve health data governance, particularly in response to the challenges highlighted by the COVID-19 pandemic. Aliya has published extensively on FAIR data principles, data accessibility, and digital health architecture, with contributions appearing in leading journals such as Data Intelligence.

David Aluodo (author)

David Aluodo is a Health Administrator with Nairobi City County Government, currently serving in Ruaraka Sub-County. He has extensive experience managing health facilities, including serving as

Executive Assistant to the County Health Director, Level 5 and Level 4 facility administrator, and overseeing 16 facilities as a Sub-County Administrator. David has led initiatives in health worker capacity building, data management, and health systems strengthening. He is also a Senior Data Steward with VODAN Africa, advancing FAIR data principles in healthcare. He holds a BA in Literature and Political Science from the University of Nairobi and is awaiting thesis defense for his MA in Research and Public Policy from Maseno University. Passionate about health policy, governance, and research, David combines analytical insight with creative writing to inform public discourse and shape effective health interventions.

Samson Yohannes Amare (editor)

Samson Yohannes Amare leads digital health research and development center and is a lecturer in the department of Software Engineering, Mekelle University. He is a PhD candidate at Leiden University Medical Center (LUMC), Netherlands. His research focuses on federated machine learning using FAIR data in health contexts. He is the technical lead at Value-driven Ownership of Data and Accessibility Network (VODAN) mainly focussed in making data Findable, Accessible, Interoperable, and Reusable (FAIR) to support development of responsible and interoperable health data infrastructures across the continent. He was a member of the team organized by the ministry of health of Ethiopia to develop a national digital health blueprint that will serve for ten years. His research interests include digital health and FAIR data science. He holds a master's degree in Informatics Engineering from University of Algarve, Portugal. He has contributed to a range of interdisciplinary research projects, including health data interoperability in low-connectivity settings, FAIR digital health infrastructures. His work also includes implementation research studies whose aim is to reduce maternal and neonatal mortality through scale up proven interventions. Some of the notable studies include scaling up Kangaroo Mother Care in Ethiopia and India and Saving Little Livers (SLL). As a member of the Globalization, Access, Innovation, and Care (GAIC) Research Network, Amare's research emphasizes scalable, human-centered digital health solutions and the application

of FAIR data science to address pressing health challenges in resource-constrained environments.

Senjuti Bala (author)

Senjuti Bala is a Master's candidate in Computer Science, specializing in Data Science, at Leiden University in the Netherlands. With a background in Information Technology and several years of industry experience, Bala brings a strong technical foundation to her interdisciplinary research. Her academic interests lie at the intersection of computer science and social science, with a particular focus on ethical and human-centric applications of artificial intelligence. She explores the use of agent-based modeling to address complex socio-technical challenges and is committed to advancing sustainable and inclusive AI systems. Driven by a vision of technology as a tool for social impact, Bala's work emphasizes the role of AI in fostering empowerment, equity, and sustainability.

Beatrix Callard (author)

Dr Beatrix Callard recently completed her PhD through the Harry Crossley Children's Nursing Development Unit at the Department of Paediatrics and Child Health, University of Cape Town. She holds an Advance Practice Nurse qualification and her focus is neonatal care. She has been a member of the National Maternal Stillbirth and Neonatal Death Review Committee for the last ten years and is advocating for improved quality in maternal, stillbirth and neonatal health data that is real-time, and facility owned and controlled. Beatrix recently joined the VODAN Africa Network as a data steward from Namibia.

Liam van Dreumel (support copy-editor)

Liam van Dreumel is a Dutch Master student ICT in Business and the Public Sector at Leiden University in the Netherlands. He has studied a wide variety of business, economics and IT subjects, including a background in fiscal economics, while mostly focussing on how business and IT aspects within organisations interact with and can complement each other. He has experience in working with FAIR concepts for over a year through various university courses instructed by Mirjam van Reisen. In 2024, he co-developed a FAIR

tool that allows users to create AI-generated FAIR metadata by uploading text-based sources.

Ria Landa-Figueroa (author)

Ria Landa-Figueroa is a healthcare professional with broad cross-sectoral experience in pediatrics, primary healthcare in Central America, and elderly care management. She has worked in both clinical and managerial roles, advocating for equitable healthcare access across diverse populations. Currently pursuing a PhD, she is an active member of the Globalization, Access, Innovation, and Care (GAIC) research group. Her research focuses on person-centered elder care, with particular emphasis on the SACOV approach and its integration into compassionate, context-aware elderly care systems.

Sakinat Folorunso (author)

Dr. Sakinat Folorunso is a senior academic in Computer Science at Olabisi Onabanjo University, Nigeria, with over 17 years of experience in artificial intelligence, machine learning, and data science. Her research explores federated learning, explainable AI, and cultural preservation through intelligent systems, with strong applications in healthcare and digital heritage. She is a Co-country lead (Nigeria) and contributor to VODAN Africa, promoting FAIR data principles for ethical and decentralized data governance. As the PI for The Route to AI Learning (TRAIL), an on-campus initiative and national organizer of IndabaX Nigeria, she champions inclusive AI education across Africa. Dr. Folorunso has published over 40 peer-reviewed papers, secured international funding from Google and the Royal Academy of Engineering, and supervised numerous graduate students. Her work bridges advanced AI techniques with social impact, contributing to equitable technology development and cultural sustainability in Africa.

Tesfit Gebreslassie Gebremeskel (author)

Tesfit Gebremeskel Gebreslassie (Author) Tesfit Gebremeskel Gebreslassie is a PhD candidate in FAIR Data Science at Leiden University Medical Center (LUMC), Leiden University, the Netherlands. His research focuses on the curation and federation of patient data within African health data ecosystems, with particular emphasis on the application of FHIR standards in the FAIRification

of health data. His publications include studies on leveraging FHIR for health data FAIRification, enabling interoperability in low-connectivity settings, and analyzing the impact of communication blackouts during the Tigray war. Gebreslassie is a member of the Globalization, Access, Innovation, and Care (GAIC) Research Network. His work contributes to the development of responsible, interoperable digital health infrastructures that advance equity, accessibility, and reusability of health data.

Lucy Hederman (author)

Dr. Lucy Hederman is an Associate Professor in the School of Computer Science and Statistics at Trinity College Dublin. She is the Heterogeneity and Interoperability Challenge Lead for the SFI funded ADAPT Centre. Her research is in health informatics broadly. Her current research interests are in clinical decision support systems, patient generated health data (PGHD), and in clinical research data integration and harmonisation. She has supervised a broad range of health informatics research, including research in the ICT4D space: a critical realist study of mobile health in Sierra Leone; and a study of challenges of health IT systems in South Africa.

Putu Hadi Purnama Jati (author)

Putu Hadi Purnama Jati is a PhD researcher at Leiden University Medical Center (LUMC), specializing in the implementation of FAIR Open Laboratory Records (FAIR-OLR) within the VODAN-Africa initiative. His engagement with this area of research began during his master's studies at Leiden University and has continued through his active involvement with the VODAN-Africa research group since 2020. His work supports collaborative efforts initiated in response to the COVID-19 pandemic to address pressing challenges in data governance and responsible health data management. He has published extensively on topics such as data access, FAIR data principles, and digital health architecture in reputable academic journals, including Data Intelligence. In addition to his academic pursuits, Putu has served as a Senior Computer Specialist at Indonesia's Central Bureau of Statistics (BPS-Statistics) since 2011. He became a certified IT Auditor in 2024. His primary research

interests include data management, FAIR principles, data protection, data regulation, and digital health governance.

Charles Kahiro (author)

Charles Kahiro Njoroge is the Creative Director of Ravelworks Company based in Nairobi. He holds a Bachelor's degree in Biochemistry, a Master's degree from the University of Salford (UK), and is currently pursuing a PhD in Social Transformation at Tangaza University, focusing on the management and value of data in research. With over five years of experience in Human Resources, Learning, and Professional Development, Charles brings a unique blend of creativity, scientific insight, and strategic thinking to his work. As part of the creative arm of VODAN, Charles plays a key role in articulating FAIR data principles and exploring solutions for the localization and ownership of digital health data within country-specific regulatory frameworks. Driven by curiosity and a deep passion for technology, he is committed to solving complex challenges and empowering individuals and organizations to grow. He believes in leveraging technology as a conduit for transformation, learning, and meaningful impact.

Bereket Godifay Kahsay (author)

Bereket G. Kahsay is a PhD candidate at Leiden University Medical Center (LUMC), Leiden University, in the Netherlands. His research focuses on the role of religious syncretism in shaping health practices, with particular emphasis on war-affected contexts. His work examines traditional healing practices in conflict zones and the development of culturally specific health ontologies that emerge from these environments. Bereket has published on the humanitarian crisis and human rights violations during the 2020–2022 war in Tigray, including the systematic destruction of cultural and religious heritage. His scholarship highlights how religious and mystical beliefs influence health behaviours and healing practices, particularly in times of societal disruption and trauma. He is a member of the Globalization, Access, Innovation, and Care (GAIC) Research Network, where his interdisciplinary work contributes to broader conversations on culturally grounded approaches to health, resilience, and post-conflict recovery.

Abdullahi Abubakar Kawu (author)

Abdullahi Abubakar Kawu is a PhD researcher in Digital Health at Technological University Dublin, Ireland, where his work focuses on the integration of patient-generated health data (PGHD) with electronic health records (EHRs). He holds a Master's degree in Advanced Computer Science from Newcastle University, United Kingdom. His research explores the intersection of human-computer interaction, FAIR implementation for PGHD, and the design and governance of digital health systems—particularly within low-resource settings. Kawu's scholarly contributions aim to enhance the usability, interoperability, and equity of digital health infrastructures. He serves on the Executive Committee of the Nigeria Human-Computer Interaction Special Interest Group (SIGCHI) of the Association for Computing Machinery (ACM) and is a member of the Globalization, Access, Innovation, and Care (GAIC) Research Network. His work reflects a commitment to responsible innovation in digital health and inclusive technology design.

Dennis Kinoti (author)

Dr. Kinoti is a healthcare leader with over a decade of experience in delivering and managing quality, accessible, and affordable clinical services in Kenya. He currently leads healthcare provision at CFK Africa, overseeing operations at Tabitha Medical Clinic, Tabitha Maternity Home, and the Youth Friendly Services Centre. His leadership promotes sustainable, community-based healthcare models tailored to the needs of underserved populations. With a background spanning both clinical medicine and healthcare management, Dr. Kinoti has held impactful roles at the Ministry of Health – Kenya, TATA Chemicals Ltd., HealthX Africa, and Beacon of Hope. This cross-sector expertise enables him to bridge frontline medical care with strategic operational planning, particularly in resource-constrained environments. He holds a Bachelor of Medicine and Surgery (MBChB) from the University of Nairobi and an MBA in Healthcare Management from Strathmore University. Dr. Kinoti's work is driven by a commitment to equitable healthcare access, system efficiency, and innovative community health solutions.

Markus Sintong Tambah Lasroha (author)

Markus Sintong Tambah Lasroha is a Data Analytics professional with over 11 years of experience in Business Intelligence, Machine Learning, and Robotic Process Automation (RPA). With a strong consulting foundation, including previous roles at Deloitte Consulting, he has led data-driven initiatives across diverse industries, driving innovation and efficiency through advanced analytics. He recently completed a master's degree in ICT in Business and the Public Sector at Leiden University, where he focused on the development of sustainable data analytics solutions for both business and government contexts. During his studies, he collaborated with the VODAN-Africa research group, an experience that shaped his thesis on integrating FAIR Open Laboratory Records (FAIR-OLR) data management principles into Indonesia's national healthcare system, SATUSEHAT. Markus combines deep technical expertise with a strategic approach to ensure that data-driven solutions are not only impactful but also aligned with long-term sustainability goals. His research interests include FAIR data principles, data management, regulation, and governance.

Zhengyu Lin (author)

Zhengyu Lin holds a Master's degree in ICT in Business and the Public Sector from Leiden University, the Netherlands. His research focused on advancing data interoperability and FAIR data management through the application of de novo FAIRification to legacy systems. In his master's thesis, he proposed a fully automated solution for real-time RDF transformation, semantic integration, and automated data upload. His work contributes to the development of scalable, machine-actionable data solutions aimed at enhancing the accessibility, reusability, and semantic integration of data across diverse systems. Zhengyu Lin's research interests lie at the intersection of semantic technologies, FAIR data principles, and digital transformation within both business and public sector domains.

Munyaradzi Mawere (editor)

Professor Munyaradzi Mawere is a distinguished academic and one of the peer reviewers for this book. He serves as Professor and Research Chair at the Simon Muzenda School of Arts, Culture and Heritage

Studies at Great Zimbabwe University. He holds a PhD in Social Anthropology from the University of Cape Town, South Africa, along with three master's degrees—in social anthropology, philosophy, and development studies—and a Bachelor of Arts (Honours) in Philosophy. A prolific scholar, Professor Mawere is the author of over 70 books and more than 300 book chapters and peer-reviewed journal articles, with a strong focus on African societies, knowledge systems, and development. His exceptional contribution to research has been recognized internationally through prestigious honors, including the Wenner-Gren Research Fellowship (2011–2014) and the Association of African Studies Presidential Fellowship Award (2017).

Lauren Maxwell (book editor)

Lauren Maxwell is a quantitative epidemiologist whose work focuses on data synthesis and reuse for maternal and child health and the research response to (re)emerging pathogens. She has led efforts to support individual participant data meta-analyses (IPD-MAs) on behalf of the WHO for the Zika and Ebola virus response and coordinated a workshop and report on FAIR health data for COVID-19 response on behalf of the European Commission. She works to unify data reuse efforts through FAIR convergence at the cross-national level and has developed a toolkit to support groups undertaking IPD-MAs. Her empirical research focuses on understanding and addressing ethical, administrative, regulatory, and legal (EARL) concerns around biomedical data and sample reuse and co-constructing responsive, ethical governance structures for the equitable reuse of biomedical data and samples. After 10 years of working to improve health data reuse for the global response to emerging pathogens, she believes that local ownership of data and privacy-preserving, federated data reuse, like the VODAN Africa approach, should be the cornerstone of data preparedness and that data preparedness is central to pandemic preparedness.

Araya Abrha Medhanyie (author)

Dr. Araya Abrha Medhanyie is an Associate Professor of Global Health at the School of Public Health, Mekelle University. He holds a PhD and has built an academic and professional career at the

intersection of global health and development. His work adopts a multidisciplinary approach, with a focus on health systems, maternal and newborn health, leadership and governance, health policy, digital health, and social transformation. Expert in implementation research, Dr. Araya specializes in the diffusion of innovation and the scaling up of evidence-based health interventions, particularly in digital health settings. His research interests include global health, health systems strengthening, digital innovation in healthcare, health and conflict, and the role of leadership in driving systemic change. Through his work, Dr. Araya contributes to advancing resilient health systems and equitable access to care in conflict-affected and low-income settings.

Albert Mulingwa (author)

Dr. Albert Mulingwa is a Medical Doctor, Public Health Practitioner, and Health Systems Consultant driven by lived experiences and a passion for equitable, quality healthcare. With over a decade of leadership, he has contributed significantly to strengthening health systems across diverse communities. He has served at local, regional, and international levels, leading integrated service delivery in HIV/AIDS, sexual and reproductive health and rights (SRHR), and mental health and psychosocial support (MHPSS). His areas of expertise include primary healthcare, health policy, systems management, digital health, research and development, and sustainable capacity building. Dr. Mulingwa is a committed research scholar and technical advisor, contributing to evidence-based public health interventions through policy development, collaborative research, and interdisciplinary partnerships. As a champion of people-centered and resilient health systems, he supports initiatives that bridge frontline service delivery with strategic leadership. He is passionate about innovation, public mental health, and the continuous development of the health workforce.

Reginald Nalugala (author)

Dr Nalugala is a postgraduate tutor at Tangaza University, specializing in social transformation. He trains research students in the PhD and Masters programme to draw on the SDGs to foster social transformation. At VODAN Africa and Asia, he is the country

lead for Kenya where he coordinates the VODAN activities in Kenya. SDG 3 highlights the importance of health and wellbeing. This situation has been made worse by the COVID-19 pandemic. Reginald and the team are studying different methodologies on how to improve the livelihoods of households affected by COVID-19 pandemic. Email address: reg.nanales@gmail.com

William Nandwa (author)

William M Nandwa is a Senior Data Steward with VODAN and has been part of the VODAN research group since 2020 contributing to collaborative initiatives with health facilities In Kenya. The collaboration is aimed at improving health data management through adoption and implementation of FAIR principles in health data. With a Msc in Epidemiology, his research interests are in maternal and child health data management.

James Ngoge (author)

James Otieno Ngoge is a Health Records and Information Technology Officer, trained at the Kenya Medical Training College, with extensive experience in health data management. He currently serves at Mathare North Hospital in Ruaraka Sub-County under Nairobi City County and acts as a Data Steward for the VODAN Africa FAIR-OLR initiative. In this role, he ensures that health data is managed in line with FAIR principles—making data Findable, Accessible, Interoperable, and Reusable. Through VODAN Africa, James has gained advanced skills in generating high-quality, non-duplicative data through streamlined processes. He is currently involved in a maternal and child health research project in antenatal clinics (ANC), utilizing the REDCap application for data collection. James is passionate about expanding his knowledge in machine learning to address recurring data challenges in Kenya. He values the continuous training and support provided by the VODAN team in enhancing capacity in digital health data systems.

Seth Okeyo (author)

Seth Ouma Okeyo is a Research Data Scientist and Biostatistician at the Centre for Virus Research, Kenya Medical Research Institute (KEMRI). With over a decade of experience in clinical research, health informatics, and statistical analysis, Okeyo specializes in

optimizing data systems and advancing evidence-based public health strategies. His career spans roles at DNDi Africa and the Walter Reed Project, where he developed expertise in clinical data management, analytics, and health system strengthening. He holds an MSc in Information Technology (Business Intelligence) from Strathmore University and a BSc in Computer Information Systems from Kenya Methodist University. His technical proficiencies include DHIS2, OpenClinica, and statistical tools such as STATA, SPSS, R, and Python. Okeyo's research contributions focus on digital health data governance, predictive analytics, and innovation in resource-constrained settings. He is committed to advancing data-driven research methodologies and mentoring emerging health informatics professionals.

Francisca Oladipo (author)

Francisca Oladipo is a Professor of Computer Science and the Vice-Chancellor of Thomas Adewumi University, Oko, Kwara State, Nigeria. She also serves as Secretary-General of the Consortium of Universities in Kwara State (KU8+) and as Vice-President and CEO of VODAN, a global network advancing Afrocentric data systems and health data sovereignty. She has held pioneering roles in academia, including as the first female Head of the Department of Computer Science and Governing Council member at Federal University Lokoja. Internationally, she has served as a consultant at Tilburg University (Netherlands) and as Director of Research and International Relations at Kampala International University (Uganda). Professor Oladipo led the VODAN Africa initiative during the COVID-19 pandemic, achieving the first machine-actionable FAIR Data Point implementation across eight African countries—a milestone recognized by UNESCO and honored at the Leiden Science Week. She is a recipient of multiple prestigious grants, including from Google, Philips Foundation, and the Carnegie African Diaspora Fellowship. A Chartered IT Practitioner and Fellow of several professional bodies such as the IEEE, ACM, and Nigeria Computer Society, she brings extensive expertise in computer science, digital health innovation, quality assurance, and curriculum development. She is also a prolific researcher and journal reviewer.

Maxwell Omare (author)

Maxwell N. Omare is a Bachelor's degree student in Computer Science with a passion for health informatics and data interoperability. Currently serving as the ICT Manager at Dagoretti Sub-County Hospital Mutuini in Kenya, he bridges technology and healthcare delivery to improve patient outcomes. As the Kenya Technical Team Lead for VODAN Africa, Maxwell drives initiatives to enhance FAIR-OLR data practices across Kenyan health systems. His research focuses on maternal health (ANC data), leveraging AI and standardized data frameworks to strengthen decision-making in low-resource settings. Committed to equitable digital health transformation, Maxwell collaborates with policymakers and researchers to optimize health information systems for frontline care.

Dympna O'Sullivan (author)

Dr Dympna O'Sullivan is the Academic Lead of the Digital Futures Research Hub at TU Dublin. Her research is in Human Centered AI with a focus on Health Informatics, and in particular in the design, development and evaluation of decision support systems to support clinician and patient decision-making. This work involves research across many aspects of the domain including electronic and personal health records, machine learning and intelligent algorithms, explainable AI, smart home technologies and accessible user interfaces. She is a passionate advocate for patient and public involvement (PPI) in research, and an expert in interdisciplinary and transdisciplinary methods and her research actively involves end users in the co-design of assistive technologies with a particular focus on persons living dementia and persons with intellectual disabilities.

Nimish Pandey (author)

Nimish Ajay Pandej is a Master's student in Data Science at Leiden University in the Netherlands, specializing in data engineering, machine learning, and cloud computing. With a strong foundation in data-driven technologies, Pandej is passionate about leveraging computational methods to inform decision-making and address real-world challenges. His current research interest focuses on developing scalable, data-informed solutions to support displaced populations, particularly refugees. He aims to apply data science to improve the

living conditions of refugees through efficient, ethical, and impactful digital interventions.

Ruduan Benjamin Franklin Plug (author)

Ruduan Benjamin Franklin Plug is an external PhD researcher at LUMC, working under the supervision of Prof. Dr. Mirjam van Reisen. His PhD research focusses on the application of FAIR principles, machine learning, and federated learning in healthcare. He performs his research together with the VODAN consortium. He holds a BSc. in Informatics and MSc. in Computer Science from Leiden University. Previously he has worked as a scientist at TNO, and currently he is a machine learning engineer at Booking.com. His broad topics of expertise include data science, machine learning and software engineering.

Lars Schrijver (author)

Lars Schrijver is a member of the GAIC research group and a dedicated data scientist. His academic journey was highlighted by a master's thesis on data interoperability in healthcare, carried out at the reputable Leiden University. Schrijver's ability to delve into complex data matters, complemented by his tangible commitment to improving healthcare data practices, distinguished his research. He has since transitioned into the professional realm as a data scientist at a leading tech company. Leveraging his comprehensive knowledge and in-depth understanding of data, L Schrijver consistently strives to deploy innovative and effective data solutions in his current role and uses this for his academic research.

Susan Sellars (book editor)

Susan Sellars provided editing support for this book. She holds a Diploma of Publishing and Editing from the Australian College QED, as well as a Bachelor of Laws (Honours) and a Bachelor of Commerce from the University of Queensland. In addition to her editorial expertise, Susan is a published author of a chapter on "Revolving Revolutions: Women's Role in Peacebuilding in Nepal After the War" in Women's Leadership in Peace Building: Conflict, Community and Care (Van Reisen, ed., Africa World Press, 2014), and a short story titled "Coffee for Buddha", featured in Confessions and Memoirs (Central Queensland University Press, 2006). Her

diverse background combines legal, commercial, and editorial perspectives, contributing to her detailed and context-sensitive approach to copyediting.

Kai Smits (author)

Kai Smits is a PhD candidate at Tilburg University, the Netherlands, specializing in the study of human trafficking of refugees along the Central Mediterranean Route between the Horn of Africa and Europe. Kai also serves as Office and Communications Coordinator at the Europe External Programme with Africa, based in Brussels, Belgium. Kai's research explores the organization and digital trajectories of human trafficking, with a particular focus on Eritrean refugees and the networks operating in and through Libya. Recent publications address trafficking dynamics in so-called digital black holes and the imperative to make data on human trafficking findable, accessible, interoperable, and reusable (FAIR). A member of the Globalisation, Access, Innovation and Care (GAIC) Research Network, Kai contributes to knowledge production that supports ethical data practices and policy responses to transnational trafficking networks.

Getu Tadelle Taye (author)

Getu Tadele Taye is a PhD candidate at Tilburg University, the Netherlands, specializing in the application of FAIR Data Principles and cultural frameworks for digital healthcare data management. He also serves as the Technical Lead for VODAN-Africa, supporting the development and deployment of responsible data infrastructures across the continent. He holds a Master's degree in Medical IT Convergence Engineering. Taye has published research including alignment of FAIR principles with regulatory frameworks in digital health, machine learning approaches for predicting ventricular fibrillation, the application of convolutional neural networks for ventricular tachyarrhythmia prediction and the deployment of FAIR Data Points during the COVID-19 pandemic. His areas of expertise include digital health, semantic data modeling, FAIR data stewardship, and knowledge management.

Danial Tesfa (support copy-editor)

Daniel Tesfa is a lecturer and researcher at Aksum University and a PhD candidate within the Globalisation, Access, Innovation and Care (GAIC) Research Network, under the supervision of Professor Dr. Mirjam van Reisen. He specializes in media ethnography and is affiliated with the Department of Journalism and Communications. He holds a Master's degree in Journalism and Communications with a focus on media development. Tesfa's research encompasses media systems, hate speech, incitement to genocide, disinformation, necropolitical propaganda, and the political communication landscape in the Horn of Africa. His publications include ethnographic studies on hate speech, graffiti, atrocity narratives, and the role of Eritrean actors in the Tigray War. With a background in journalism, he bridges academic inquiry with real-world media practice. He contributed to this book in a support copy-editing role.

Mehul Upase (author)

Mehul Bhojraj Upase is a Master's candidate in Data Science (Computer Science) at Leiden University, the Netherlands. His thesis focuses on detecting graphs, routes, and nodes of human trafficking using data science techniques in Kenya, with an emphasis on interoperable analytics in North Africa. His research explores the intersection of technology and social justice, particularly the application of data science to combat human trafficking. In addition to his academic work, Upase leads a startup company specializing in AI-driven solutions, reflecting his commitment to translating research into practical, impactful technologies.

Intan K. Utami (author)

Intan Kusumadewi Utami is a recent graduate of the Master's program in ICT in Business and the Public Sector at Leiden University. Her academic background merges ICT and management to develop sustainable and impactful solutions across both public and private sectors. Intan's research explores how technology enhances governance, operational efficiency, and strategic alignment in organizations. Since 2019, she has worked as an IT Officer at Indonesia's Ministry of Public Works. Her primary research interests

lie in data management and governance, with a focus on leveraging digital systems to improve organizational performance and continuous process improvement.

Mirjam Van Reisen (editor)

Professor Dr. Mirjam Van Reisen is the lead author of this book. She holds the Chair of International Relations, Innovation and Care, Tilburg University as well as University Chair of FAIR Data Science, Leiden University Medical Center (LUMC), Leiden University, both in the Netherlands. She also served as a member of the Dutch Government Council on International Relations and as Chair of the Council on Development Cooperation until 2021. In 2012, she was awarded the Golden Image Award by Liberian President Ellen Johnson Sirleaf in recognition of her support to women in peacebuilding and her contributions to peace and development. Professor Van Reisen is widely published in the fields of global development, digital health, and data governance. Her recent research focuses on FAIR data, federated health data systems, and digital infrastructures across Africa. She has contributed extensively to the development of the FAIR Open Laboratory Records (FAIR-OLR) framework and has published on topics such as federated data architecture, medical data curation, and FAIR practices in leading journals including Data Intelligence and ScienceDirect. Her work emphasizes ethical data stewardship, equitable access to digital infrastructures, and the localization of data governance frameworks to strengthen healthcare systems and protect vulnerable populations, particularly across the African continent. Her editorial and authorial contributions include Tigray: The Hysteresis of War, The Panarchy of War, and War in Digital Black Holes (2024), as well as Human Trafficking in the Sinai: Refugees between Life and Death (2012), The Human Trafficking Cycle: Sinai and Beyond (2014), Sinai Trafficking: Origin and Definition of a New Form of Human Trafficking (2015), Human Trafficking and Trauma in the Digital Era (2017), and Mobile Africa: Human Trafficking and the Digital Divide (2019).

Jacinta Wairimu (author)

Jacinta Wairimu Kamau is a seasoned Monitoring and Evaluation Officer with over a decade of experience in healthcare information

systems, data management, and performance optimization. Currently serving as the HRIO/Monitoring & Evaluation Officer at Beacon of Hope Health Centre, she leads efforts to enhance data quality and evidence-based decision-making in healthcare delivery. Jacinta has played a pivotal role in transforming health information systems by implementing comprehensive digital frameworks, designing systematic data validation protocols, and developing performance measurement mechanisms to support strategic planning. Her expertise extends to advanced health information systems management, data quality improvement strategies, and digital health technology implementation. In VODAN Africa, Jacinta drives initiatives to enhance FAIR-OLR data practices across Kenyan health systems, currently working on maternal health (ANC data) data frameworks to strengthen decision-making. With specialized training in Kenya EMR systems, DHIS2, statistical analysis (SPSS), and KHIS software, Jacinta is committed to advancing healthcare information management. She collaborates with stakeholders to optimize health data systems for improved patient care and reporting outcomes.

Liya Mamo Weldu (author)

Liya Mamo Weldu is a lecturer in biostatistics at the School of Public Health, Mekelle University, and a researcher at the Digital Health Research and Development Center. She holds a Master's degree in Biostatistics and Health Informatics. Her academic and research interests encompass maternal and child health, data science, and implementation research, with a focus on digital health innovations. She has published studies on the prevalence of depression and associated factors among community-hosted internally displaced populations during war and siege, the effects of communication blackouts, and patient engagement in SMS-based health promotion. A member of the Globalization, Access, Innovation, and Care (GAIC) Research Network, Liya Mamo is dedicated to advancing evidence-based, data-driven digital health solutions that address health information needs.