

## About The Author

A



**Abdullahi Kawu** is interested in research in Human-Computer Interaction, Digital Health and ICT4D, hence most of his works are in those domains. He is passionate about people and technology, in particular exploring their engagements with technology. He is currently a Lecturer at Ibrahim Badamasi Babangida University, Lapai, Nigeria and a PhD research fellow with TU Dublin under the Science Foundation Ireland (SFI) Centre for Research Training in Digitally-Enhanced Reality (d-real) program. Earlier on, he obtained an MSc in Advanced Computer Science (Distinction) with interest in Human-Computer Interaction from Newcastle University, UK. He has also worked as a Consultant Staff to international development organisations like Malaria Consortium, World Bank and UNDP where he had the rare opportunity to learn and apply technical, leadership, project management, and Monitoring and Evaluation (M&E) skills in health projects.

Email address: [abdullahikawu@ibbu.edu.ng](mailto:abdullahikawu@ibbu.edu.ng)

ORCID: 0000-0003-2531-9539



**Akinyinka Tosin Akindele** is an instructional Designer and eTutor at LAUTECH Open and Distance Learning (LODLC), Nigeria. He also works as eLearning Consultant for Kampala International University, Uganda. He has over 8 years' experience and is skilled in various eLearning technologies such as administration of LMS, curriculum and course authoring, creation and editing of multimedia (videos, animations and graphics) etc. He has trained diverse stakeholders on Blended Learning and actively participating in several eLearning projects locally and internationally including Partnership for Blended Learning (PEBL) West Africa sponsored by Association of Commonwealth Universities; Carbon Literacy for Youth Employability and Job Creation by British Council; Digital Innovation Skill Hub (DISH) by Dutch Ministry of Foreign Affairs Orange Knowledge Program etc. Mr Akindele holds an MSc degree in Computer Science from LAUTECH, Nigeria and he is presently pursuing his Ph.D. He has authored several articles on Distance Education and application of Artificial Intelligence to Health, Education and other related areas.

Email address: [akinyinka.akindele@kiu.ac.ug](mailto:akinyinka.akindele@kiu.ac.ug)

ORCID: 0000-0002-7027-466X



**Ali Mtiraoui**, a graduate of the Faculty of Medicine of Sousse (MD), the University of Montreal (MSc, community health) and the Pierre and Marie Curie University of Paris (statistics applied in epidemiology), is Director of the Laboratory of research “Quality of care and management of health services”, Former President of the University of Sousse, Honorary Dean and former Director of the Department of Family and Community Medicine of the Faculty of Medicine of Sousse. The quality of services and the management of services (education and health) are at the center of his professional concerns. He has worked at all levels of Tunisia’s health care system and has carried out several consultation and expertise mandates in several fields, both nationally and internationally (development of intervention plans at the regard to health problems, design of curriculum & training programs, management of health services & mobilization of human resources, strategic planning, accreditation and certification, etc.).

Email address: [ali.mtiraoui@gmail.com](mailto:ali.mtiraoui@gmail.com)

ORCID: 0000-0002-6990-955X



**Aliya Aktau** received her MSc degree in Computer Science from Leiden University, The Netherlands, in 2020. She is now a PhD candidate at Leiden University Medical Center (LUMC) and teaching Data Collection, Wrangling, Analysis and Visualization at Suleyman University, Kazakhstan. Her research interests include FAIR Data Science and FAIR Data Management. She works as a data curator for medical health research.

Email address: [aleka.aktau@gmail.com](mailto:aleka.aktau@gmail.com); [a.aktau@lumc.nl](mailto:a.aktau@lumc.nl)

ORCID: 0000-0003-4942-2725



**Anthony Wachira** graduated from the University of Nairobi with a BSc. Honors in Mathematics and Computer Science in 1988 and an MBA in Management Information Systems and Strategic Management for the same University in 2001. His MBA project was titled Ergonomic Factors Considered in Information Systems Implemented in Kenya: A Case of Firms in Nairobi. He is currently enrolled for PhD in Healthcare Management at the Institute of Healthcare Management of the Strathmore Business School — Strathmore University. He has been deeply involved in research on the provision of ICT solutions across many sectors and at various levels, the last two being ICT Services Director, Strathmore University and GM-ICT, Kenya Airports Authority. He chaired the inter-agency committee on border security in 2007, where one of the principal outcomes was the proposed single identification source for civil registration and vital statistics for all persons within the territory of Kenya using biometric data capture with the objective of creating Big Data. Email address: anto.wash@gmail.com  
ORCID: 0000-0002-0344-4403



**António Cartaxo** (1987, Lisbon) visited in 2019 a research project on HIV prevention and care in Coastal Kenya, after which he became interested in access to healthcare. Since January 2020 he has been a PhD aspirant at Leiden University within the Globalisation Accessibility Innovation and Care network. His research focuses on participation in digital health innovation and health orientations in informal settlements in Nairobi, Kenya. Email address: am.cartaxo@gmail.com  
ORCID: 0000-0002-1276-1179



**Araya Abrha Medhanyie** holds a PhD and is associate professor of public health at the School of Public Health at Mekelle University, Ethiopia. He has seventeen years of work experience in teaching, research, and community service. His research interests and professional career focus mainly in Global Health and Development. He is interested and has been building his research career in multidisciplinary and implementation research that integrates health systems, maternal and newborn health, health systems leadership and governance, health policy, digital Health and social transformation. Methodologically, he is interested and keen in specializing his capacity in implementation research, diffusion of innovations and scale-up of proven health interventions. He is passionate about serving humanity through research, education and leadership. He enjoys reading and writing about social change, leadership and development. He is Country Coordinator of VODAN-Africa.

Email address: araya.medhanyie@gmail.com

ORCID: 0000-0002-9328-684X



**Awotunde Joseph Bamidele** received his B.Tech. degree in Mathematics/Computer Science from Federal University of Technology, Minna, Nigeria, in 2007. M.Sc. and Ph.D. degrees in Computer Science from the University of Ilorin, Ilorin, Nigeria, in 2014 and 2019 respectively. Since 2019, he has been a Lecturer with the Department of Computer Science, University, of Ilorin, Ilorin, Nigeria. He is the author of more than 40 articles, 30 chapter in book, and more than 25 Conference Proceedings in reputable outlets like Elsevier, Springer Taylor and Francis among others. His research interests include Information Security, Cybersecurity, Bioinformatics Artificial Intelligence, Internet of Medical Things, Wireless Body Sensor Networks, Wireless Networks, Telemedicine, Medical Imaging, Software Engineering, and Biometrics. He is a member of International Association of Engineers and Computer Scientist (MIAENG), Computer Professional Registration Council of Nigeria (MCPN), Nigeria Computer Society (MNCS), and Internet Society.

Email address: awotunde.jb@unilorin.edu.ng

ORCID: 0000-0002-1020-4432

**B**



**Balyejusa Gusite** is a staff member in the directorate of research, innovation, consultancy and extension of Kampala international university serving as a data communications officer. He is also a data steward (Expert) in virus outbreak data network (VODAN-A). Gusite is currently pursuing a masters of science in information systems (Msc.IS) at Kampala International University, He holds a first class Bsc. Information technology from KIU. As an information technology personnel, Gusite is a freelancer developer, with bias in automation systems, data science, deep learning, Machine learning, computer vision and security systems.

Email address: [gusite.balyejusa@kiu.ac.ug](mailto:gusite.balyejusa@kiu.ac.ug)

ORCID: 0000-0003-4515-6052



**Bert Meerman** is the Director of the GO FAIR FOUNDATION (GFF), based in Leiden, the Netherlands. Involved in different EOSC Projects (EOSC Secretariat and EOSC Nordic). GFF focus is on the promotion, protection and the correct implementation of the FAIR Principles, next to the transfer of knowledge on the application of FAIR.

Email address: [b.meerman@gofairfoundation.org](mailto:b.meerman@gofairfoundation.org)

ORCID: 0000-0002-0071-2660

**D**



**Dwy Bagus** earned his Master degree in Electrical Engineering and Informatics from Institut Teknologi Bandung (ITB), Indonesia, in 2018. He is now a lecturer and software architect in Politeknik Statistika STIS, Indonesia. His research interests include software engineerings such as cloud computing, blockchain, and artificial intelligence.

Email address: N/A - reached through Putu

ORCID: 0000-0002-1100-5742

E



**Erik Flikkenschild** was educated in the early days of computer science as an electronic engineer (innovative curriculum by TU Delft, Antony Fokker school and MTS The Hague (1974). He is now an information manager and IT architect (LUMC) and Deputy Director (Go-FAIR foundation). His computer science interest is the design of the Internet of FAIR Data Services with a focus on data protection, starting with policy (risk assessment) translating in the IT design of access control measures.

Email address: [e.flikkenschild@lumc.nl](mailto:e.flikkenschild@lumc.nl)

Alternative email: [erikf@gofair.foundation](mailto:erikf@gofair.foundation)

ORCID: 0000-0002-7285-1651



**Ezekiel Ogundepo** In the fields of mathematics and statistics, Ezekiel is a knowledgeable and creative professional. He holds a master's degree from the African Institute for Mathematical Sciences (AIMS), Rwanda, where he received a scholarship from MasterCard, and a first-class degree in statistics from the University of Ilorin, Nigeria. He has experience with the Rwanda Revenue Authority (RRA) and is a leading expert in advanced statistical modelling. He worked on the RRA team that developed the interactive taxpayer data portal and automated key statistical reports needed by internal and external users. Ezekiel is currently employed by 54gene (a biotechnology company) as a Data Specialist and has made contributions to the *ralger* web scraping R package and the Big Book of R. He is a certified instructor for Rstudio Tidyverse, a data steward at Virus Outbreak Data Network (VODAN) Africa and Asia, and an active member of the Africa R programming community.

Email address: [ezekiel@datasciencenigeria.ai](mailto:ezekiel@datasciencenigeria.ai); [ogundepoezekiel@gmail.com](mailto:ogundepoezekiel@gmail.com)  
(preferred email)

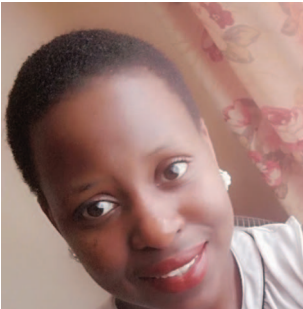
ORCID: 0000-0003-3974-2733



**Ezra Mwesigwa** Highly enthusiastic about Health Informatics and ICT for development (ICT4D). Ezra has proficiency in Information Systems Analysis, Design and Development with over 6 years' experience delivering electronic knowledge management solutions currently working as a DevOps Engineer at Makerere University Kampala (MAK) and Kampala International University (KIU). With a Msc. and Bsc in Information Systems, Ezra has been part of local and international project establishments in and outside Uganda serving within various technical capacities. Currently part of a wider multinational VODAN-Africa team developing and piloting a FAIR data architecture in 88 facilities across 7 countries in Africa, DevOps Consultant towards responsible anti-microbial use in refugee settlements within Uganda; a project funded by Pfizer, ICT consultant working through Makerere University Climate Change and Research Initiative-MUCCRI to develop a national climate change Knowledge Management System funded by Food and Agriculture Organization among many other notable involvements.

Email address: [mezra@cit.ac.ug](mailto:mezra@cit.ac.ug)

ORCID: 0000-0003-2125-1012



**Esther Thea Inau** is a PhD student studying in the Medical Informatics Department at the Universitätsmedizin (University of Medicine) Greifswald, Germany. Her PhD studies are based on implementing and evaluating the FAIRness of data obtained from health cohort studies in Germany.

Email address: [inaue@uni-greifswald.de](mailto:inaue@uni-greifswald.de)

ORCID: 0000-0002-8950-2239

**F**



**Francisca Oladipo**, is a Professor of Computer Science and pioneer Director, Quality Assurance, Federal University Lokoja (FUL), Nigeria. She is a Consultant at the Tilburg School of Humanities and Digital Sciences of Tilburg University, Netherlands, and had served previously at Kampala International University (KIU), Uganda as the Director of Research, Innovations, and International relations. She has recently been appointed the Vice-Chancellor and Chief Executive Officer of Thomas Adewumi University, Nigeria.

Email address: francisca.oladipo@kiu.ac.ug

ORCID: 0000-0003-0584-9145



**Francis Kinyua** Gathua facilitates development and implementation of appropriate youth and women livelihoods strategies; self and wage employment for self sustenance and resilience in Nairobi slums. With over 10 years in non-profit sector, Francis has solid, documented experience in project cycle management, behavioural/cognitive skills development, high maturity and knowledge of working with young people, team building, strategic planning, mentorship, collaboration, monitoring and evaluation. Francis is a certified life skills facilitator/trainer and manages Kamukunji Community Empowerment Initiative's (KCEI) vulnerable youth and women enablement project. Francis Holds a B.A and MA in Sociology from University of Nairobi.

Email address: kgathua@gmail.com

ORCID:



**Fredrick Obwanda** is a healthcare management expert from Kenya, who worked at the Ministry of Health leading institutional, and policy agenda at the National Blood Transfusion Services, in addition to being a Sub-County Hospital Manager and Linked to Tangaza University at present.

Email address: fobwanda@gmail.com

ORCID: 0000-0002-8275-0926

Articles contributed to: Article 10



**G**



**Gertjan van Stam** has been involved with ICT in Africa since 1987. He holds a PhD in Culture Studies from Tilburg University, an MTech in ICT from Nelson Mandela University, and an engineering degree in telecommunications. His activities focus on mechanisms at the intersection of society and technology.

Email address: [gertjan@vanstam.net](mailto:gertjan@vanstam.net)

ORCID: 0000-0003-4618-6106



**Getu Tadele Taye** is a lecturer in the department of Health Informatics at the college of health sciences Mekelle University (MU), Ethiopia. He has worked as a software engineer for almost 3 years prior to joining MU. He is an active member of digital health research and development center at MU. Currently, he is also working as country technical lead in the project Virus Outbreak Data Network Africa and Asia (VODANA). VODANA is a Global Open Findable, Accessible, Interoperable, and Reusable (GO FAIR) Implementation Network set up to help fight the COVID-19. He has vast research experience in Medical and IT Convergence technology and participated in national and international conferences and published journal papers on prestigious peer-review journals. He is interested in the concepts and technologies in data science, data FAIRification, eHealth Architecture (eHA) and making HISs interoperable. He holds a master's degree in Medical IT Convergence Engineering from Kumoh National Institute of Technology, South Korea.

Email address: [getu.tadele@gmail.com](mailto:getu.tadele@gmail.com); [getu.tadle@mu.edu.et](mailto:getu.tadle@mu.edu.et)

ORCID: 0000-0002-9965-1801

**H**



**Hauwa Limanko Ibrahim** is a research assistant with the New and Emerging Technology Research Group (NETReg), IBB University Lapai, Nigeria. She is interested in the design and evaluation of novel interactive technologies in low resource communities.

Email address: [ibrahimhauwa977@gmail.com](mailto:ibrahimhauwa977@gmail.com)

ORCID: 0000000240566442

**I**



**Ibrahim Abdulahi** is Head of the Department of Computer Science, Ibrahim Badamasi Babangida University, Lapai. He is Director ICT and Chairman New and Emerging Technologies Research group (NETREG). Ibrahim holds a PhD in Computing, a Senior Member of the IEEE. His research interest include: Future Internet (Information-Centric Networking), Operating Systems, Algorithms, AI, Bigdata, and Digital-Health. A Lecturer of Computing and the Director of Information and Communication Technology at IBB University, Lapai, Nigeria. He is a facilitator, editor and content writer of several Learning Management System (LMS) solutions.

Email address: [ibrojay01@gmail.com](mailto:ibrojay01@gmail.com); [ibrojay01@ibbu.edu.ng](mailto:ibrojay01@ibbu.edu.ng)

ORCID: 0000-0002-3467-1203

**J**



**Jamilu Yahaya Maipan-uku** (Mr.) received his B.Sc. in Computer Science from Ibrahim Badamasi Babangida University Lapai (IBBUL, 2010), Niger State, Nigeria. Also, holds M.Sc. in Computer Networks from Universiti Putra Malaysia (UPM, 2016), Malaysia and Ph.D. (in view) in Computer Information Systems at Near East University, Cyprus with about 15 technical and international conference papers across [SCOPUS](#), [DBLP](#) databases. His research interest includes; Grid Computing, Cloud Computing, Cyber Security, Artificial Intelligence, Machine Learning, and Deep Learning. He is a member of Nigeria Computer Society (NCS) and Internet Society of Nigeria (ISOC). Email address: [jymaipanuku@ibbu.edu.ng](mailto:jymaipanuku@ibbu.edu.ng)  
ORCID: 0000-0001-8071-7295



**Mr. Joseph Elijah** (M.Eng.) is a lecturer in the Department of Computer Science, Ibrahim Badamasi Babangida University, Lapai, Nigeria. He is a member of the council for the registration of Engineers in Nigeria, a member of the association for computing machinery, and the international association of Engineers (IAENG). His current research interests include intelligent systems, cognitive radio, microstrip antenna, and digital health. Email address: [ibrojay01@gmail.com](mailto:ibrojay01@gmail.com)  
ORCID: 0000-0002-9922-9029

**K**



**Dr Katy Wolstencroft** is an Assistant Professor in Bioinformatics at Leiden University. She has a Bachelor in Biochemistry (University of Leeds) and a Master and PhD in Bioinformatics (University of Manchester). Her research focuses on data and knowledge integration in the life sciences. She is an author of the FAIR guiding principles and is instrumental in the development of several FAIR data initiatives in systems biology, bioimaging and biomedicine, in addition to her activities in VODAN. Email address: [k.j.wolstencroft@liacs.leidenuniv.nl](mailto:k.j.wolstencroft@liacs.leidenuniv.nl)  
ORCID: 0000-0002-1279-5133



**Klara Smits** works at Tilburg University as a PhD candidate on the topic of human trafficking of Eritrean refugees in the digital era. Smits is interested in forced movement, and particularly the aspects of digitalisation, in the nexus of environmental, political and social problems. She has a MSc. in Forest and Nature Conservation with a specialisation in Sustainable Development Diplomacy.

Email address: [klarasmits@gmail.com](mailto:klarasmits@gmail.com)

ORCID: 0000-0003-1713-7057



**Kudakwashe Chindoza** received his MCom Information Systems degree in 2015 (GZU), a BSc in Information Systems in 2006 (MSU) and a Post-Graduate Diploma in Higher and Tertiary Education in 2019 (GZU), Zimbabwe. He is a technical expert of VODAN-Africa in Zimbabwe. He is a PhD student with Tilburg University.

Email address: [chindoza@gmail.com](mailto:chindoza@gmail.com); [kchindoza@gzu.ac.zw](mailto:kchindoza@gzu.ac.zw) (Official email)

ORCID: 0000-0002-8346-5211



**Kibrom Fekadu Berhe** is a Lecturer and researcher of Public policy and Development at Mekelle University, Ethiopia. He obtained MA degree in Public Policy and Sustainable Development from University of Gondar, Ethiopia in 2013 and Masters of Environmental Management from Massey University, New Zealand in 2015. He has over 10 years of experience in teaching research and community services in higher education institutions. He is currently working in consultancy, mediation, advocacy and research in Belgium.

Email address: [kiblid@gmail.com](mailto:kiblid@gmail.com)

ORCID: 0000-0003-1728-5076

**M**



**Marek Suchánek** is PhD student at Czech Technical University in Prague and University of Antwerp (double-degree programme). His research topic is about connecting conceptual modelling and software implementations beyond model-driven development. He obtained both master's and bachelor's degrees at CTU in Prague in Information Systems and Management. He actively participates on various projects such as Data Stewardship Wizard or FAIR Data Point.

Email address: [marek.suchanek@ds-wizard.org](mailto:marek.suchanek@ds-wizard.org)

ORCID: 0000-0001-7525-9218



**Mariam Basajja** is currently pursuing a PhD in Computer Science at Leiden University in the Netherlands. She obtained a master's degree in Advanced Computing, machine Learning and Data mining from the University of Bristol, UK and also has a master of Science in Computational Intelligence from University of Nairobi, Kenya. She also holds a bachelors in Applied Computer Technology with a concentration in Software Engineering from United States International University Africa. Her main areas of interest are around FAIR data, big data, databases, data analytics, cloud computing, ICT Infrastructure and others.

Email address: [mariam.basajja@gmail.com](mailto:mariam.basajja@gmail.com)

ORCID: 0000-0001-7710-8843



**Mariem Ghardallou** received her Medical doctor degree from the Faculty of Medicine of Sousse, Tunisia, in 2011. She is now an Associate Professor in Community and Preventive Medicine at the Faculty of Medicine of Sousse, University of Sousse, Tunisia. She is currently the vice-dean of research and valorization of expertise at the Faculty of Medicine of Sousse and the country coordinator for Tunisia of VODAN Africa.

Email address: [ghardallou.m@gmail.com](mailto:ghardallou.m@gmail.com)

Alternative Adress: [Mariem.Ghardallou@famso.u-sousse.tn](mailto:Mariem.Ghardallou@famso.u-sousse.tn)

ORCID: 0000-0001-9289-722X



**Dr. Mia Stokmans** is an associate professor at Tilburg University, Tilburg School of Humanities and Digital Sciences. Between 2008 and 2010 she was involved in the EUCIM-TE Comenius project co-funded by the European Commission, DG Education and Culture within the Lifelong Learning Programme to improve the pre- and in-service training of all teachers for their work with immigrant pupils by elaborating a competence-based European Core. Between 2011 and 2012 she participated in the ARKA-project about the valorisation of human capital of migrants in the European Union. She has participated in the NWO project Cost Benefit Analysis of Social Protection on Social Economic Resilience, the NWO project Mixed Migration Ethiopia, and the ZonMW project about care processes for dementia. Her main fields of interest are the role of attitudes and emotions in human decision making, social processes for behavioral change and mixed method approaches in doing research.

Email address: [M.J.W.Stokmans@tilburguniversity.edu](mailto:M.J.W.Stokmans@tilburguniversity.edu)

ORCID: 0000-0002-7593-9632



**Mirjam van Reisen** is Professor International Relations, Innovation and Care at Tilburg University and Professor of FAIR Data Science at the Leiden University Medical Centre (LUMC) at Leiden University. Van Reisen is Research Leader of the Globalization, Accessibility, Innovation and Care (GAIC) network. Her teaching experience includes, among others, the University of Pavia, Tilburg University, Amsterdam University College, Leiden University and the College of Europe. Van Reisen is the Director of the organisation Research Advisors & Experts Europe (RAEE) in Brussels. Van Reisen is the Coordinator of the Virus Outbreak Data Network (VODAN) Africa implementation network. Van Reisen was a member of the Dutch Advisory Council on International Affairs (AIV) and Chair of the Development Assistance Committee (COS) from 2013 to 2020. Van Reisen received the Golden Image Award in 2012 by President Ellen Johnson Sirleaf.

Email address: [mirjamvanreisen@gmail.com](mailto:mirjamvanreisen@gmail.com)

ORCID: 0000-0003-0627-8014



**Misha Stocker** is a consultant with Research Assistants and Experts Europe in Brussels. He studied European governance with a double major from the University of Konstanz, Germany, and the University of Utrecht, The Netherlands. He received his bachelor degree in Liberal Arts and Sciences with a major in political science from the University College Roosevelt from Utrecht University. He carried out his internship in the Go FAIR foundation and his thesis investigated the EU policy making on FAIR Data.

Email address: [mishastocker@gmail.com](mailto:mishastocker@gmail.com)

ORCID: 0000-0003-0347-9953



**Morgane Wirtz** is a PhD student at Tilburg University, a freelance journalist and a researcher for EEPA. She focuses on human right abuses, security in Sahel, migration and human trafficking on the Central Mediterranean Road. Based in Tunisia, she works for Le Point Afrique, Inkyfada and Hans Lucas. She is also a documentary filmmaker.

Email address: [morgane.wz@gmail.com](mailto:morgane.wz@gmail.com)

ORCID: 0000-0002-2514-5797



**Mouhamed Mpezamihigo** born in Uganda, is Vice Chancellor of Kampala International University and leader of the programme of the Digital Innovation and Skills Hub (DISH), and Chair of the Virus Outbreak Data Network - Africa, VODAN-Africa. He is board member of the African Institute for Capacity Development (AICAD), and Executive Committee member of the Interuniversity Council for East Africa (IUCEA) among many other obligations he holds.

Email address: [vc@kiu.ac.ug](mailto:vc@kiu.ac.ug)

ORCID: 0000-0002-9700-3034



**Munyaradzi Mawere** is a double professor, being a Full Professor of African Studies at Great Zimbabwe University (GZU), Zimbabwe and a Professor Extraordinarius of Interdisciplinary Research at the University of South Africa (UNISA), South Africa. Mawere has 310 publications to his credit, including 91 books, and over 200 book chapters and peer-reviewed journal articles published with internationally acclaimed publishers.

Email address: [munyaradzimawerem@gmail.com](mailto:munyaradzimawerem@gmail.com)

ORCID: 0000-0002-3684-6089

**N**



**Nambobi Mutwalibi** is a Vodan Expert of the Virus Outbreak Data Network (VODAN) Africa implementation network. He is also a research assistant at Motion Analysis Research Lab, Islamic University in Uganda. He was a research assistant in the Technical and Vocational Education (TVE) department at Islamic University of Technology, Bangladesh (IUT, 2018). He holds a BSc. Technical Education (Islamic University of Technology, Dhaka, Bangladesh) specializing in computer science and engineering. His research interest on Disruptive Innovations, FAIR Data, JTBD, Wargaming Strategy, Game theory, Competition, Blue Ocean Strategy, Blended learning, Green Skills, TVET and ICTs in developing countries. He can be reached via his website: [www.nambobi.com](http://www.nambobi.com), email: [hello@nambobi.com](mailto:hello@nambobi.com) and contact +256701044034  
Email address: [nambobi.mutwalibi@kiu.ac.ug](mailto:nambobi.mutwalibi@kiu.ac.ug)  
ORCID: 0000-0001-6822-616X

**O**



**Obinna Osigwe** is a Digital Media Professional at Kampala International University, Uganda and the Communications Lead at Virus Outbreak Data Network Africa (VODAN-Africa). His experience and competence spans across Computer Networking, Digital Marketing, Data Analysis, Online Reputation Management, Performance Measurement and has Consulted for several organizations in Nigeria and Uganda. Obinna has a Bachelor of Science in Computer Science from Nnamdi Azikiwe University Nigeria, and is currently a Master's Student in Project Management.  
Email address: [obinna.osigwe@kiu.ac.ug](mailto:obinna.osigwe@kiu.ac.ug)  
ORCID: 0000-0001-7825-3591



**Oladiran Tayo Arulogun** is an astute manager of peopleware, hardware and software. He is a Professor of Computer System Engineering from Ladoke Akintola University of Technology (LAUTECH), Nigeria. He currently oversees the University's Vision of opening and expanding access to qualitative education as the Director of LAUTECH Open and Distance Learning Centre. His main objective is to simplify processes, drive innovation, harness impactful opportunities, infuse novel research outcomes into society, and inspire and prepare the stakeholders for the future.  
Email address: [otarulogun@kiu.ac.ug](mailto:otarulogun@kiu.ac.ug); [otarulogun@lautech.edu.ng](mailto:otarulogun@lautech.edu.ng)  
ORCID: 0000-0003-0254-4944





**Oluwole Olumuyiwa Afolabi** has more than a decade of experience working in an international organisation and has over time built his proficiency in PHP, MySQL, JavaScript, Ajax and several other programming languages. He has proficient skills with CSS, Self-Developed Content Management System (CMS), Microsoft Office Packages, CorelDraw, and a very good understanding of design and the use of the Adobe Creative Suite. He has obtained professional certifications including; PHP OOP: Object-Oriented Programming for Beginners – Certificate of Completion from UDEMY – 2018, Online Cambridge Certified Web Publisher from Cambridge Intercontinental University- 2010, and a Diploma in Advanced Web Development from ECAND Nig. Ltd- 2009. He is currently working with Kampala international University as a Web Administrator.

Email address: [oluwole.afolabi@kiu.ac.ug](mailto:oluwole.afolabi@kiu.ac.ug)

ORCID: 0000-0002-4007-6363

**P**



**Putu Hadi** received his M.Sc degree in ICT in Business and the Public Sector from Leiden University, the Netherlands, in 2021. He is a PhD student with the Leiden University Medical Center (LUMC). He is now an ICT expert in Central Bureau of Statistics, Indonesia. His research interests include data governance and principles such as FAIR and open data. He is a technical team lead in VODAN-Africa on implementation in health facilities.

Email address: [putu.hadi.purnama.jati@umail.leidenuniv.nl](mailto:putu.hadi.purnama.jati@umail.leidenuniv.nl)

ORCID: 0000-0002-6533-3709

**R**



**Reginald 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 livelihoods of households affected by COVID-19 pandemic.

Email address: [reg.nanales@gmail.com](mailto:reg.nanales@gmail.com)

ORCID: 0000-0002-3737-9777



**Ruduan Plug** is an associated researcher with the Leiden University Medical Center and a scientist in machine learning and artificial intelligence at monitoring & control services of TNO. Previously he has been named a Google Scholar for his work on OpenAI's scalable meta-learning algorithm and he has worked with CEDAR at the Stanford Center for Biomedical Informatics Research. In addition, he has acted as a technical coordinator for VODAN, is active within the interdisciplinary GAIC research group of Tilburg University and is an ambassador for FAIR data and the European Open Science Cloud (EOSC) at the GO FAIR foundation. His research primarily focuses on the application and adaptation of machine learning, artificial intelligence and the architecture of interoperable, federated and distributed computational ecosystems for data-driven applications.

Email address: [ruudplug@gmail.com](mailto:ruudplug@gmail.com)

ORCID: 0000-0001-5146-6116

S



**Samson Yohannes Amare** is a lecture in the department of Software Engineering, Mekelle University (MU). He is an active member of digital health research and development center at MU doing research, teaching and software development. Samson has been involved in most of the digital health activities done in MU. He has also been working on a couple of software development projects and implementation researches. He is actively working on the project Virus Outbreak Data Network Africa and Asia (VODANA), which is a Global Open Findable, Accessible, Interoperable, and Reusable (GO FAIR) Implementation Network set up to help fight COVID-19. He has also experience on software architecture and enterprise architecture development working closely with OpenHIE and the ministry of health. He has contributed during digital health blueprint development by the ministry of health. His research interests include digital health and data science. He holds a master's degree in Informatics Engineering from University of Algarve, Portugal.

Email address: [samsonya@gmail.com](mailto:samsonya@gmail.com); [samson.yohannes@mu.edu.et](mailto:samson.yohannes@mu.edu.et) (Official email)

ORCID: 0000-0002-5425-1126



**Sara Nodehi** received her MSc degree in ICT in Business and the Public Sector from Leiden University, the Netherlands, in 2021. Immediately after graduation, she started her work as a Ph.D. candidate at the Open University, the Netherlands. Her research interests include IT governance, Business/IT alignment, Information security management, and digital transformation. Email address: sara.nodehi95@gmail.com (preferred); s.nodehi@umail.leidenuniv.nl (work address)  
ORCID: 0000-0002-2919-1336



**Sakinat Folorunso** is a computer science lecturer and researcher at Olabisi Onabanjo University, Ago Iwoye, Ogun State, Nigeria. She had a B. Tech in Computer Science from the Federal University of Technology, Akure, Ondo State, Nigeria. She also had an M. Sc and PhD in Computer science for the University of Ibadan, Ibadan, Oyo State, Nigeria. She has authored many journals and conference articles in Data mining, Machine Learning and Data Science. Email address: sakinat.folorunso@oouagoiwoye.edu.ng  
ORCID: 0000-0002-7058-8618

T



**Tesfit Gebremeskel Gebreslassie** is a lecturer of Health Informatics at the school of public health, Mekelle University (MU). He has eight years of experience in electronic Health Management Information Systems as a program implementer and consultant to the Ministry of Health in the area of eHealth and health informatics initiatives. He has been engaged in the development and implementation of different health-related electronic health system. He has been working in the areas of eHealth Architecture and interoperability in collaboration with OpenHIE. He spends most of his time in reading and practising health information and innovation related trending ideas and developments. Tesfit is head of the digital health research and development center at Mekelle University. He holds a master's degree in Biostatistics and Health Informatics. Email address: tesfitgebremeskel@gmail.com  
ORCID: 0000-0001-9389-5584



**Tigist Abtamu** is an Information Science expert with a multi-disciplinary orientation and qualifications. She worked in the field of information science for more than 10 years in the Ethiopian Public Health Institute. Currently she is working as e-health coordinator at Addis Ababa University, School of Public Health, Capacity Building and Mentorship Program to support the Ministry of health initiative in the area of Health Information System development in the country by strengthening the Health information system aiming to build local capacity to transform health data quality and information use for evidence-based decision making.

Email address: [tigist.habtamu@aau.edu.et](mailto:tigist.habtamu@aau.edu.et); [tigist12@yahoo.com](mailto:tigist12@yahoo.com)

ORCID: 0000-0001-6082-1060

## W

**William Muhadi Nandwa** holds a BSc. Microbiology and Biotechnology and an MSc. Epidemiology. He has worked at Pumwani Maternity Hospital in Kenya as a data steward under USAID Afya Jijini. Currently, he is the lead data steward and Country Coordinator for the VODAN-Kenya team. He also brings together the forum of all Country Coordinators of VODAN-Africa. He has undertaken further training in data management technology under the Phillips Foundation. His research experiences has been fundamental in the development of this paper.

Email address: [wmnandwa77@gmail.com](mailto:wmnandwa77@gmail.com)

ORCID: 0000-0002-2994-4916



**Wondimu Ayele** is Assistant Professor Biostatistics and Health Informatics at School of Public Health, Addis Ababa University. Assistant Professor and Director Health Information Capacity Building and Mentorship Project (Preventive medicine ). He is a coordinator in the Virus Outbreak data Network - Africa. He studied at the Institute of Medicine, Epidemiology, Health Informatics and Biometer, Martin Luther University, Halle (Saale), Germany. Data manager for Ebola Response (Diseases Surveillance).

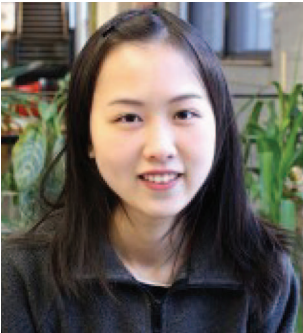
Email address: [wondimu.ayele@aau.edu.et](mailto:wondimu.ayele@aau.edu.et); [wondaay@gmail.com](mailto:wondaay@gmail.com)

ORCID: 0000-0001-5899-347X



**Whitney Atieno** Otieno is an Highway Engineering student at Kenya Institute of Highways and Building Technology. She is a community worker at Majengo, Pumwani, in Nairobi, Kenya and a leader in the Kamukunji Community Empowerment Initiative (KCEI). She developed an interest with community work for she grew up in slums. She is a women's rights activist. In 2018, she joined Kenya Women in Justice Centres group. She is a community leader and associated with the Tangaza University College initiative with the community organization KACPEN on social transformation.  
Email address: [atienowhitney6@gmail.com](mailto:atienowhitney6@gmail.com)

**Y**



**Yan Liang** has received a double BA from University of Minnesota Morris in Economics and Statistics and a MSc in Computer Science from Leiden University. Her interests are in cloud computing and big data management and she has contributed to the core architecture of VODAN. Yan is currently active as a data engineer at KPMG in Digital Assurance & Innovation and is a chair at the KPMG Dani Young Board.  
Email address: [y.liang.2@umail.leidenuniv.nl](mailto:y.liang.2@umail.leidenuniv.nl); [liangyan12138@gmail.com](mailto:liangyan12138@gmail.com)  
ORCID: 0000-0002-3860-725X

**Yi Lin** received his M.Sc degree in ICT in Business and Public Sector from Leiden University, Netherlands, in 2021. He is now a research assistant at Leiden Institute of Advanced Computer Science (LIACS), Leiden University. His research interests focus on data analysis for business insight.  
Email address: [y.lin@liacs.leidenuniv.nl](mailto:y.lin@liacs.leidenuniv.nl)  
ORCID: 0000-0002-9833-3457

**Z**



**Zohra Touati** received her Professional Master's Degree in Information and Communication Technology in 2008. She is now a Professor in Computer Science at the Faculty of Medicine of Sousse, University of Sousse, Tunisia. Email address: [zohra.touati@live.fr](mailto:zohra.touati@live.fr)  
ORCID: 0000-0002-8329-706X